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THE

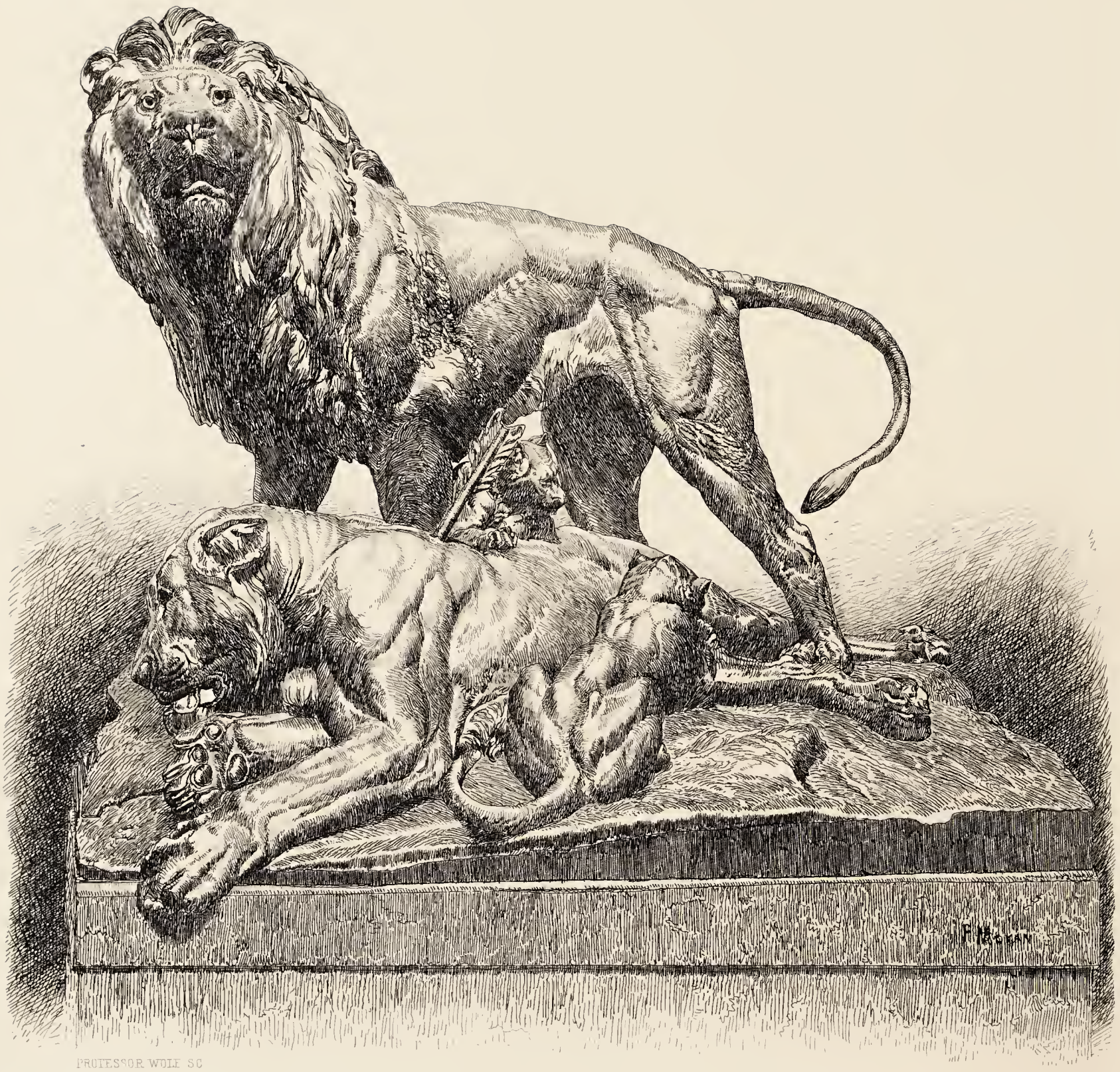
MASTERPIECES

OF THE

CENTENNIAL INTERNATIONAL

EXHIBITION

VOLUME II



PROFESSOR WOLF SC

PETER MORAN ENG

THE DYING LIONESS.

[illegible] International Exhibition 1876.

GEBBIE & BARRIE

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THE

MASTERPIECES

OF THE

CENTENNIAL INTERNATIONAL EXHIBITION

ILLUSTRATED

VOLUME II

INDUSTRIAL ART

BY

PROF. WALTER SMITH

PHILADELPHIA

GEBBIE & BARRIE

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THE INDUSTRIAL ART OF THE INTERNATIONAL EXHIBITION

BY

WALTER SMITH.

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THE INTERNATIONAL EXHIBITION 1876.

"HISTORY," it has been said, "repeats itself;" and this saying, like many other glibly-worded truisms which have become proverbial, has been repeated so often that its true meaning is often lost sight of. Of course, where the same general conditions exist, it is reasonable to suppose that similar effects will be produced; and since—as has been justly observed—the repetitions that are recorded in historical chronicles are the result of periodical recurrences of great combinations of events, coupled with certain general coincidences in the motives and aims that govern and influence human conduct, the careful inquirer would probably discover under the motives and aims that suggested the celebration of the nation's centenary by a grand International Exhibition of the world's products, the same condition of things as actuated Europe and England—at intervals in the past—to institute similar displays. It is evident, however, that before there can be repetition there must be precedent, and while we may be, and probably are, following in the same grooves as other older nations, we are, to all intents and purposes, making our own history; and, as in this instance, to the great majority of our people such an event as this Exhibition is an absolutely new experience.

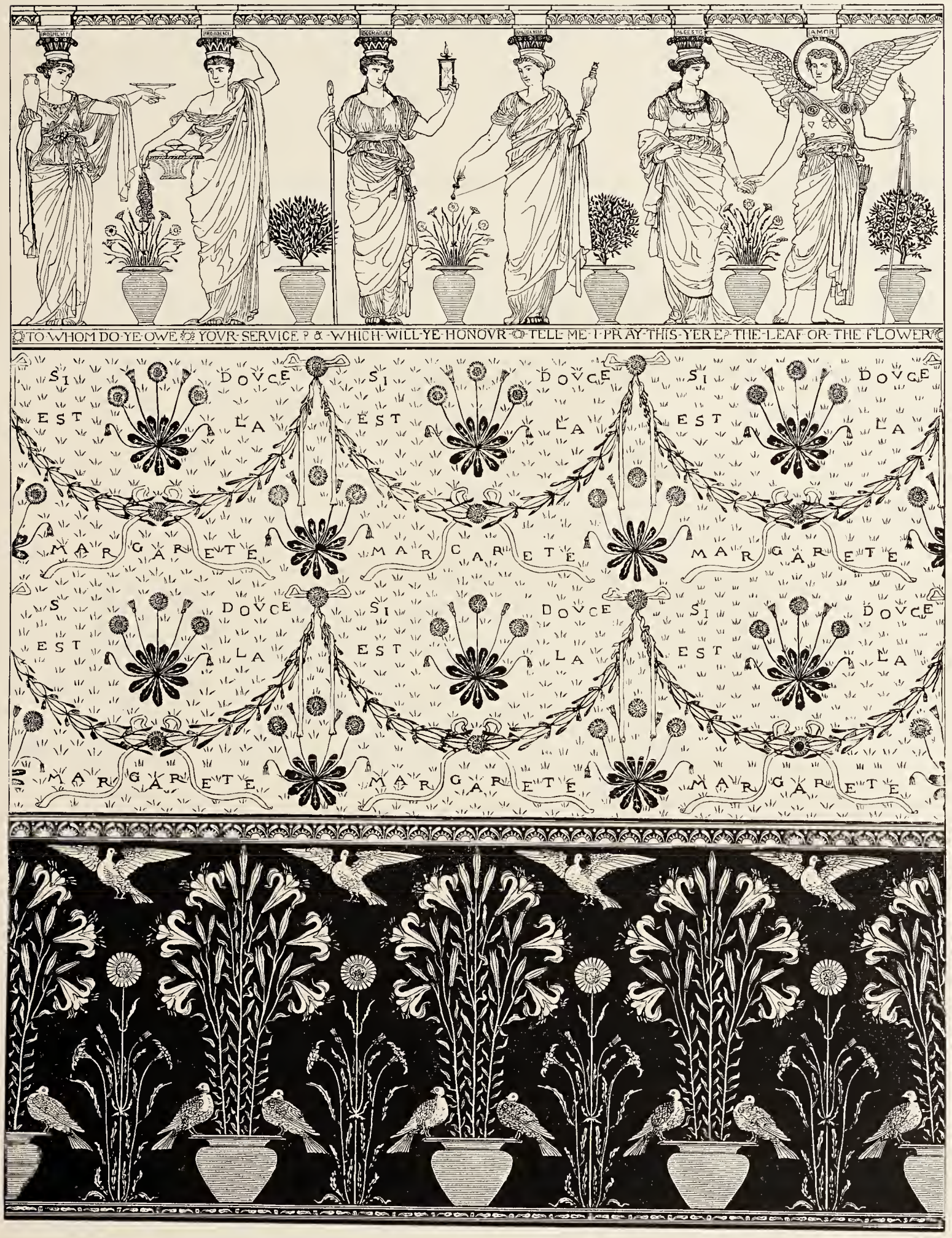
Of the inestimable practical, as well as speculative or theoretical advantages of periodical illustrations of the world's progress we have spoken in another place, our province here is simply to direct attention to one particular department of this Exhibition. But what a grand and comprehensive division it is! Industrial Art! The union of the two great elements of civilization—Industry,

the mere mechanical, manual labor, and Art, the expression of something not taught by nature, the presentation of that ideal, the mere conception of which raises man above the level of savagery.

In ancient times the Arts comprised two great divisions: the Liberal and the Servile. The latter were about equivalent to what we to-day call mechanical arts, and they received the name of *servile* because their practice was relegated to the slaves; whereas the Liberal Arts, which included grammar, dialectics, rhetoric, music, arithmetic, geometry and astronomy, were practiced by freemen alone. At the present time, however, the world, while retaining the former term, makes a different division. We speak of the Fine Arts as distinguished from those which are simply useful or mechanical; and by Fine Arts we mean poetry, music, sculpture, painting and architecture. But when we add to an article which, in itself, supplies a mere bodily want, such ornamentation as makes it lovely or pleasing to look upon, attractive to the eye, ministering to the wants of the mind, we at once place it in that great middle ground between Fine Art and mere mechanical execution, which is known as the field of Industrial Art.

Thus, only excluding the production of raw material, Industrial Art might be made to include every branch of labor. But, as a matter of fact, the application of art to industry, while affecting all branches of manufacture, has found its chief expression in a number of special directions; as in the decoration of textile fabrics, whether by stamping a pattern on, or weaving it in to, the material; in the making of tapestry, lace and embroidery; in ornamental printing and bookbinding; in furniture, upholstery, paper-hangings and *papier-mâché;* in the manufacture of iron, steel and copper, and especially in braziery; in working the precious metals and their imitations, as in jewelry; and in the production of glass and pottery.

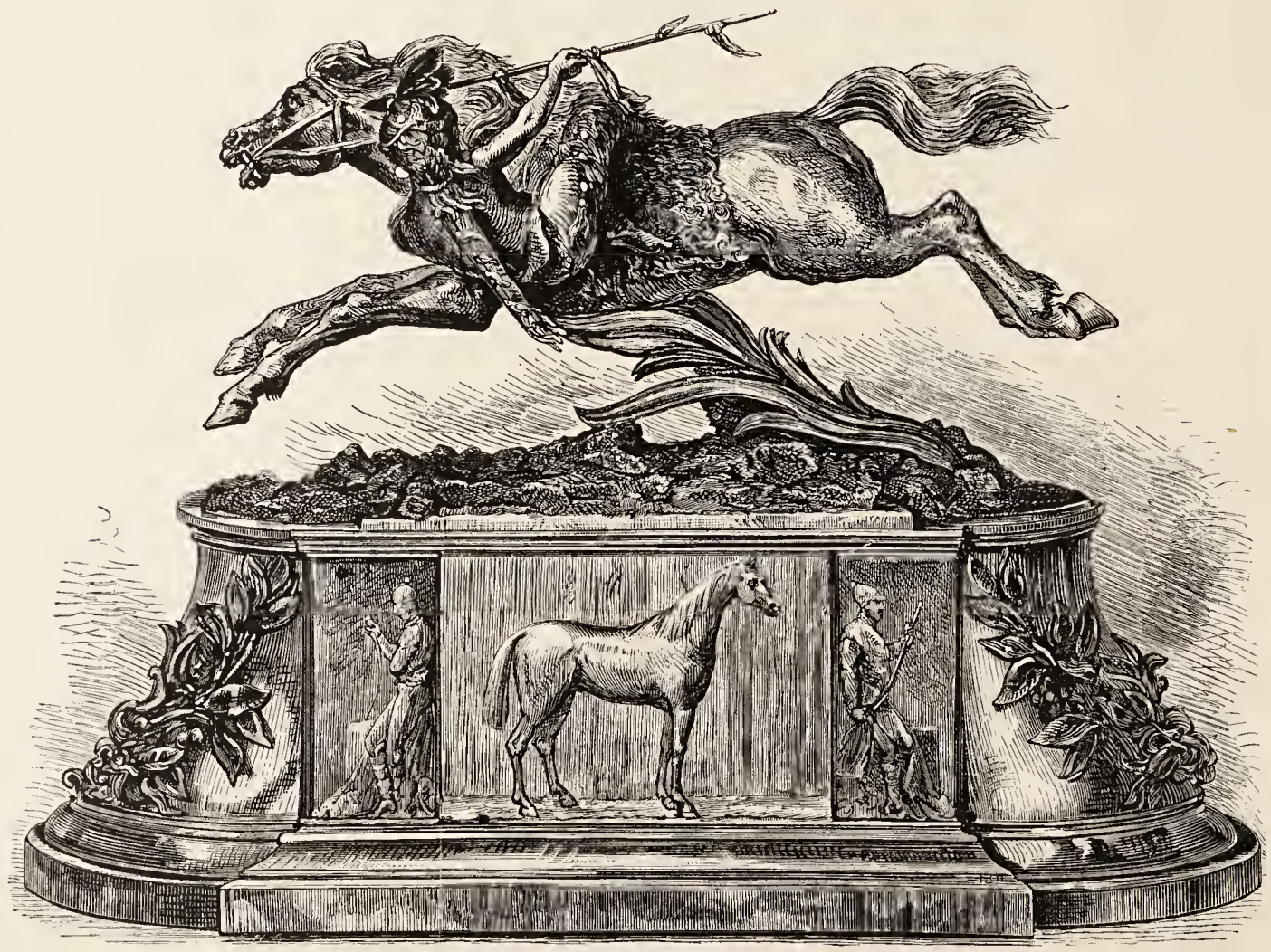
This, then, is the scope of this division of our Catalogue, and it shall be our endeavor to illustrate these pages with examples of the most admirable and artistic specimens of the widely different Art Industries contained in the Exhibition. To point out their particular merits, to give such descriptions of their construction as will be of interest to the unlearned as well as the learned reader, and to give such general information—wherever it is pertinent—on the details of the manufacture as will render the work a valuable book of reference both


PRVDENTIA
PROVIDENCE
DISCRETION
DILIGENTIA
ALCESTIS
AMOR
TO WHOM DO YE OWE YOVR SERVICE ? & WHICH WILL YE HONOVR TELL ME I PRAY THIS YERE? THE LEAF OR THE FLOWER
SI DOVCE EST LA MARGARETE

La Margarete Paper: Jeffrey & Co., London.

for the artist, the manufacturer and the artizan, and for the student of Industrial Art.

Before entering upon the work of illustration, however, it will be well to give some general rules by the application of which any one, no matter how ignorant of historical art, or of those superb examples of manufacture made in days "when art was still religion," when the artist and the artizan were one, may form



Race-Cup, Silver: Tiffany & Co.

comparatively a just estimate of the claims of an object of Industrial Art to be considered worthy of commendation. The first thing to do, in this as in all other branches of industry, is to consider the purpose for which the object has been made. Exercise common-sense. If it is something for use—say a shovel—do not let the eye distract the judgment by dwelling upon the beauty of its ornamentation. Look at it from a utilitarian standpoint. Ask the question, does it accomplish its use? If, on the other hand, it is an object of ornament, as a brooch, the questions of design and ornamentation are of primary importance. In both—shovel and brooch—the quality of the workmanship is the next

consideration. Is it good, honest work, or is it sham? And in both, too, the taste and skill displayed in the application of ornament or decoration of any kind, above and beyond what their utility requires, is the third and final consideration. The first requirement from that which proposes to serve is efficient service; the next, elegance of manner in which the service is performed. If an object is so lacking in good design as to be homely, it is poor work; if it is so loaded down with ornamentation as to be unhandy or useless, it is bad work. The happy mean between the two, which combines the utility that serves the body with the beauty that satisfies the mind, constitutes true art.

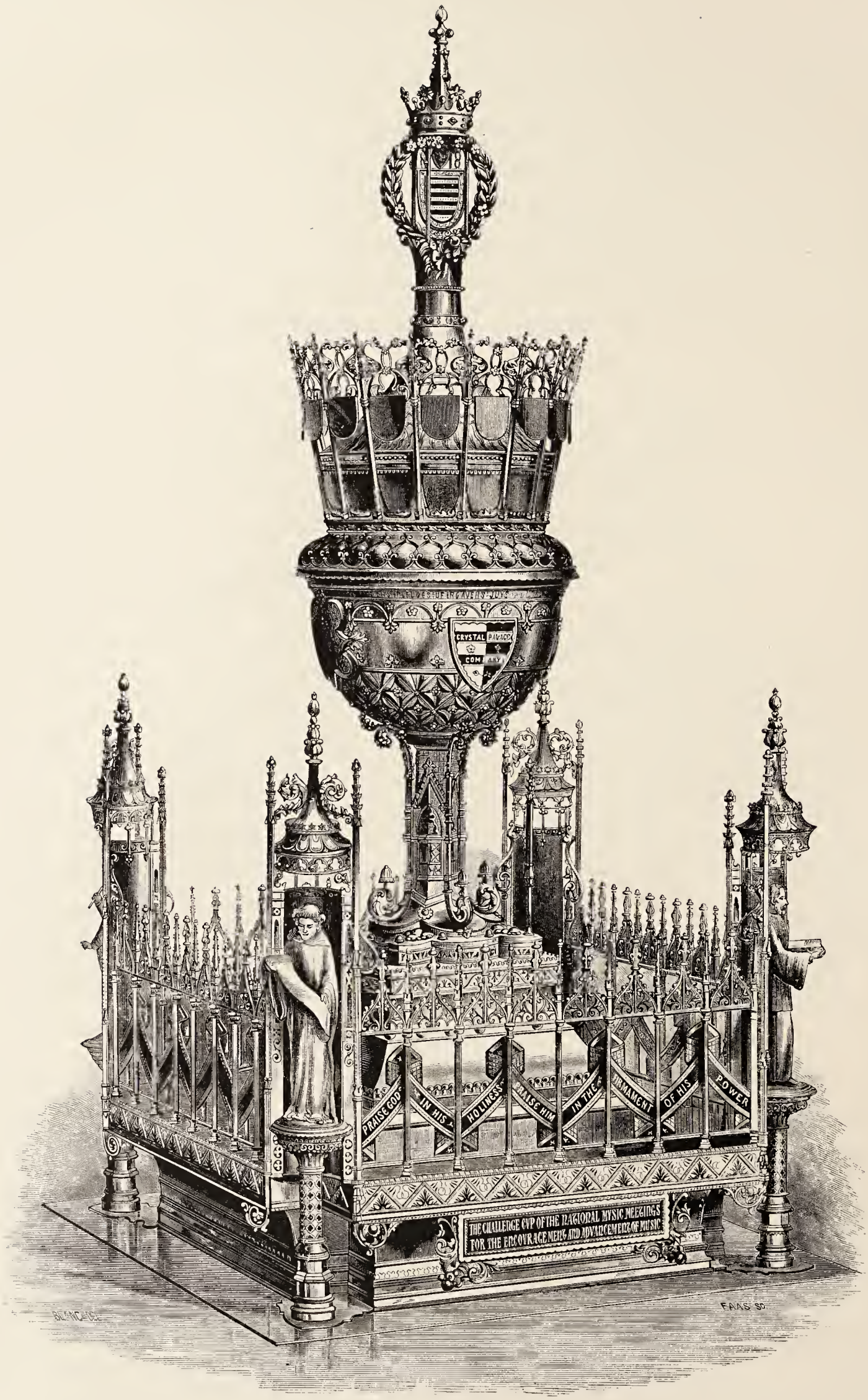
Our first illustration is an engraving representing a beautiful specimen of PAPER-HANGING, manufactured by MESSRS. JEFFREY & COMPANY, Paper-Stainers, of LONDON, especially for this Exhibition. The design was furnished by MR. WALTER CRANE, also of LONDON, an architect of ability who has recently been making a specialty of interior decoration, artistic designs for furniture, etc. MR. CRANE has given this paper the name of "La Margarete," and the daisy has been chosen as the motive of the design, in the Chaucerian sense:—

> As she that is of allë flowres flour,
> Fulfilled of all virtue and honour
> And ever alike fair and fresh of hue.
>
> PROLOGUE: *Legend of Good Women.*

The frieze shows: "The God of Love, and in his hand a Queen,"—Alcestis, the queen of wives—crowned with the daisy and clothed in its colors as Chaucer describes in his Prologue, quoted above. Next in order are placed as not inappropriate attendants on the ideal wife, such domestic virtues as Diligence, Order, Providence and Hospitality, which will not be considered out of place in any house, and may fitly be represented as caryatides supporting the roof. Between the figures, the alternate plants suggest the text inscribed below them from Chaucer's "Flower and the Leaf." In the daisy pattern below is introduced the burden of the song in praise of the flower from the same poem:—

"Si douce est la Margarete."

This pattern in the paper consists of four rows of festoons, but we have been obliged to cut off two of them in order to reduce the engraving to the size of our page. In the Dado, the Purity and Innocence which the poet does not "clepe folye," is further symbolized by the Lilies and the Doves.


CRYSTAL PALACE
COMPANY
PRAISE GOD IN HIS HOLINESS
PRAISE HIM IN THE FIRMAMENT OF HIS POWER
THE CHALLENGE CVP OF THE RACIONAL MVSIC MEETINGS
FOR THE ENCOVRAGEMENT AND ADVANCEMENT OF MVSIC

Challenge Prize of the National Musical Union: Cox & Sons, London.

Turning now from this admirable production of Mr. Crane's, we give an illustration of a totally different branch of industry, in a specimen of work from the establishment of one of our own manufacturers. The "COMANCHE CUP" is exhibited by MESSRS. TIFFANY & CO., of NEW YORK. The main figure represents a Comanche hunter armed with a rifle, clinging dexterously to a galloping mustang in such a way as to shield his body and retain the use of his arms for defence or attack. The bas-relief on the pedestal is a fine specimen of *repoussé* chasing. Including the base, it is wrought wholly of sterling silver.

That our readers may have an opportunity of comparing the art workmanship of this country with that of other nations in a department of art—that of the goldsmith—which is not only one of the most ancient, but also one of the most durable in the world, we give on the preceding page an illustration of a celebrated production of the MESSRS. COX & SONS, LONDON. This beautiful work is from a design made by MR. S. J. NICHOLLS, architect, of LONDON, and was selected from eighteen other designs furnished by other artists of note. It was selected in open competition for the CHALLENGE PRIZE of the National Musical Union, valued at £1000, and was executed for the Crystal Palace Company by MESSRS. COX & SONS.

The design consists of a loving-cup, that is, a cup holding sufficient liquor to allow of its being passed round among several persons—a custom doubtless originated at the ancient love-feasts or Agapæ—supported by a pedestal and platform, all of silver gilt, richly adorned with enamels and jewels; the whole, with the cover, standing over 36 inches high. The cup itself is 10½ inches high, and is enriched with *repoussé* work, filigree work, enamels and engraving. The enamels—which are beautifully executed—comprise figures of Saint Cecilia and King David. The bowl, 10 inches in diameter, is supported on a stem and foot of varied plan, and is pierced with tracery and adorned with jewels. The inscriptions and devices, which are in enamel and engraving, upon the stand and also upon the cup commemorate the object of the design. The cover is surmounted by a crown and wreath enamelled, and the latter encloses a shield on which is engraved the title and device of the society which won the cup. This shield is so made that it can be hung within the wreath or suspended in one of the panels of the cover as the prize changes ownership, or, rather, holding. The pedestal is 18 inches square, and comprises a platform surrounded by open

tracery and enamelled scrolls, bearing suitable inscriptions. Each angle is occupied by canopied niches, containing statues of Guido, Aretino, Palestrina, Handel, and Mozart.

It would be interesting to describe the processes which such a piece of work as this undergoes from the time the drawing of the design is put in the hands of the modeller until it comes from the polisher all burnished and ready for exhibition. Such a description, to be done properly, would take up more space than could be given to it at the present time, but while we are upon the subject we can speak of one branch of goldsmith's work which is represented in the article we have just described and which is excellently well illustrated in a PITCHER from the PHILADELPHIA house of J. E. CALDWELL & Co. This sort of work is called *repoussé*, which expresses with exactness the method of its production. In this PITCHER — for example — after the base, bowl and neck had been formed and the lip hammered into shape, the floriated pattern was penciled upon its surface and then, by means of blunt chasing tools, was hammered outward, not to the form in which it now appears, but, so to speak, in masses. Thus, one of roses, which now shows each leaf with distinctness, was simply a smooth, rounded surface, like an apple. After the design had been raised in this manner to its proper heights, the pitcher was filled with a cement of pitch and rosin, which hardens and makes a solid foundation for the chaser to work upon. This man then, with other chasing tools, goes over the details of the pattern and works into position the parts which are to be "set back," or *repoussé*. The chaser's work, although it has nothing to do with the designing, is very important and requires skilled and artistic workmen, for it is in their power to give to a

Pitcher; Repoussé Silver: J. E. Caldwell & Co.

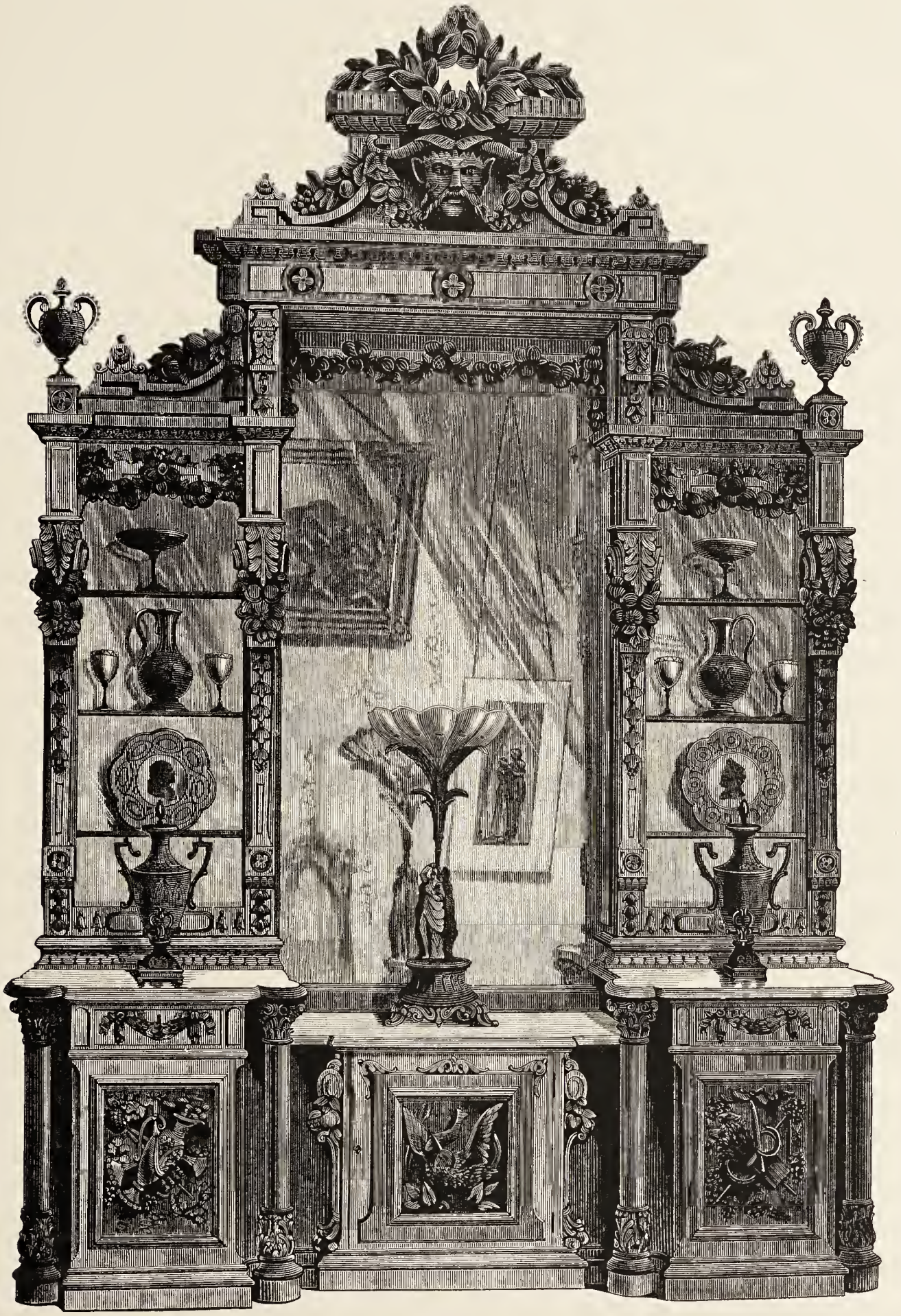
St. Paul; Stained Glass: Samuel West.

poor design considerable finish and expression, or to ruin a fine pattern by working it in a spiritless, characterless manner. This process has always been a favorite one on account of the fine artistic effects of which it is capable.

In a subject like that which we illustrate on the preceding page the engraving speaks for itself. It is a design for a stained glass window exhibited by Mr. Samuel West, of Boston. The figure itself will be recognized at once as that of the Saint Paul in Raphael's celebrated picture of Saint Cecilia. Of course, it is impossible to give even a suggestion of the rich color which appears in the stained glass, but the imagination can conceive the effect of the sunlight illuminating the halo round the head, making it a veritable nimbus, and enriching the scarlet and embroidery of the robe with tints such as even Raphael could not paint.

Sappho; Watcomb Terr-Cotta Company.

The engraving on this page is selected from the exhibits of the Watcomb Terra-Cotta Company of England. It is a beautiful example of the high artistic qualities of a material too little employed in this kind of work. Terra-cotta—meaning burned or baked clay—has been used from the earliest ages as a material for jugs, jars and ornamental figures, and during the five centuries preceding the seventeenth it was largely used by the Italians in architectural decoration. In England its manufacture became an important industry toward the end of the last century, and it was much used instead of carved stone ornamentation. A notable modern example of this is in the handsome façade of the South Kensington Museum, where its superior adaptability and durability for such uses has been proven. Michael Angelo employed this material in making models and sketches for his work, and it is used in that way to this day. But, when a material is capable of such fine manipulation as to produce this



Buffet or Sideboard: Allen & Brother, Philadelphia.

Sappho and to be employed in large masses—as for the ornamentation of a building—its value in Industrial Art can hardly be over-estimated.

On the previous page we illustrate an article of furniture, the importance of which, as a means of making or marring the artistic appearance of an apartment can hardly be over-estimated. In England this piece of furniture would be called a *Buffet*, but in this country it is almost universally known as a Sideboard. The prominent position which a sideboard occupies in a dining-room, its use for the display of silver and china, as well as for the necessary articles pertaining to the meals while the latter are going on, make the consideration of artistic design and harmony in its construction a matter of primary importance.

The subject of our illustration is an admirable specimen of its kind, and is an excellent example of the character of the workmanship for which its manufacturers, the Messrs. Allen & Brother, of Philadelphia, have more than a mere local reputation. The wood principally used in the construction of this handsome piece of furniture is American walnut, the veneering of the panels and fillets being French walnut. The under portion of the sideboard is divided into three parts, each of which contains a closet for the safe-keeping of china, etc. The doors to these closets are paneled and ornamented with artistic designs. On either side of the outer divisions rise walnut columns, with ornamental bases and capitals, supporting slabs of French Jasper. Above these slabs rises the back of the sideboard, its middle portion being occupied by one large sheet of plate-glass, separating the two sides, which also are backed by plate-glass from each other. In front of these latter an artistic arrangement of shelves, supported by floriated pillars, furnishes a means of effectively displaying rare vases, china or bric-a-brac of any kind. These outer columns are surmounted by ornamental vases, which serve to balance and give harmony to the elaborate entablature which surmounts the inner columns. The carving upon the upper portion of this is well worthy of a careful and critical examination.

For many years France has asserted and maintained her supremacy in the manufacture of bronzes—a supremacy doubtless due to the superiority of her Schools of Art, where her workmen are specially prepared and educated in correct principles of design. In this special industry—that of the bronzists—a thoroughly organized and widespread system of education prevails, and the result to the nation is shown in what has been almost a monopoly of a par-

ticular industry of immense pecuniary value. Recently, however, other nations have entered the field in competition with the French bronzists. Germany has developed some excellent talent; and more recently England, by devoting herself just as France has so long done—gradually to training the young workmen up from the Art School to designing and modeling for metal-work—has gained for herself an excellent reputation. Such work as is exhibited by Messrs. Cox & Son, of London, a house whose productions are known all over the world, could not be produced by any but workmen whose education has been not only in the workshop and foundry, but also in the studio.

Snake-Charmer: Cox & Son, London.

We ask the reader to give this work of art-manufacture the degree of attention which it merits. The material is bronze—first cast in a mould, and afterwards finished with the chisel. The subject is an Indian Snake-charmer, a class of men frequently met with in Asia and India and throughout the tropics. Observe the ease and gracefulness of the pose. One arm is raised, the hand holding a wand round which the snake is twined. The man's head is bent backward as he watches the reptile, while in the other hand he holds the small pipe, just removed from his mouth, by which he has created the charm. The left foot, placed firmly upon the ground, supports the weight of his body; the other, resting lightly upon the lid of the closed basket, suggests the idea that the snake upon the wand is but one of several—the others being confined in the basket. The figure is in a sitting posture, and yet there is no relaxation to the muscles. We can see that the man is on the *qui-vive*, though the moment chosen is one when he naturally would be perfectly motionless. Herein lies one of the greatest merits of the work in a purely artistic sense. To attempt to convey a sense of motion in a statue or carving is not good art. Move-

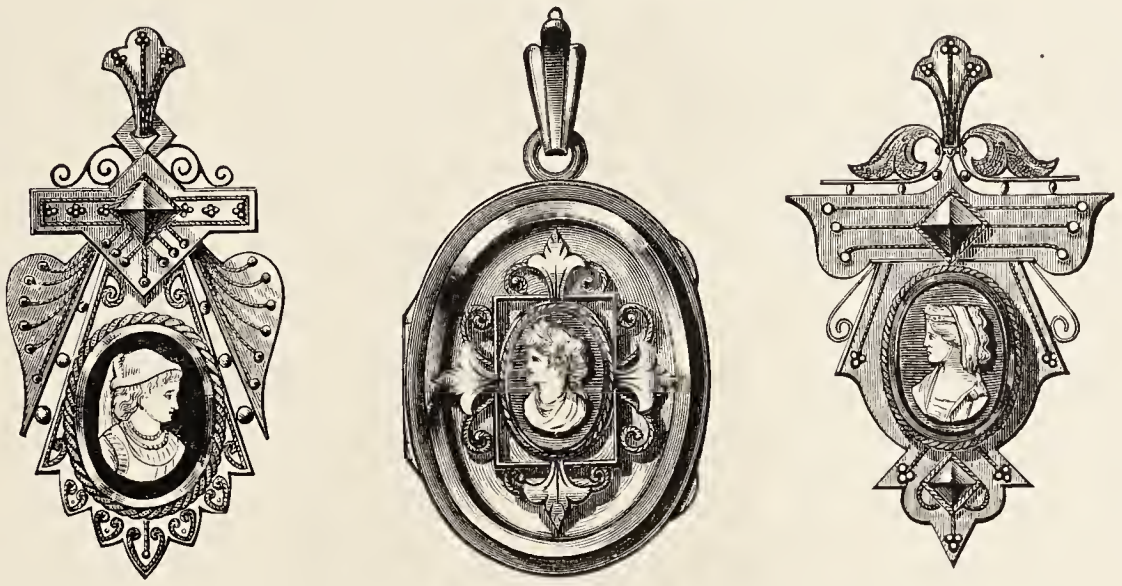
ment belongs entirely to the domain of the painter. The Laöcoon, one of the grandest works of ancient art preserved to us, while at first view it may seem to contradict our assertion, will be found on a careful inspection to be but a proof of what we say; and we do not remember a single instance of what is generally acknowledged to represent the best efforts of antique sculpture which can be cited against us.

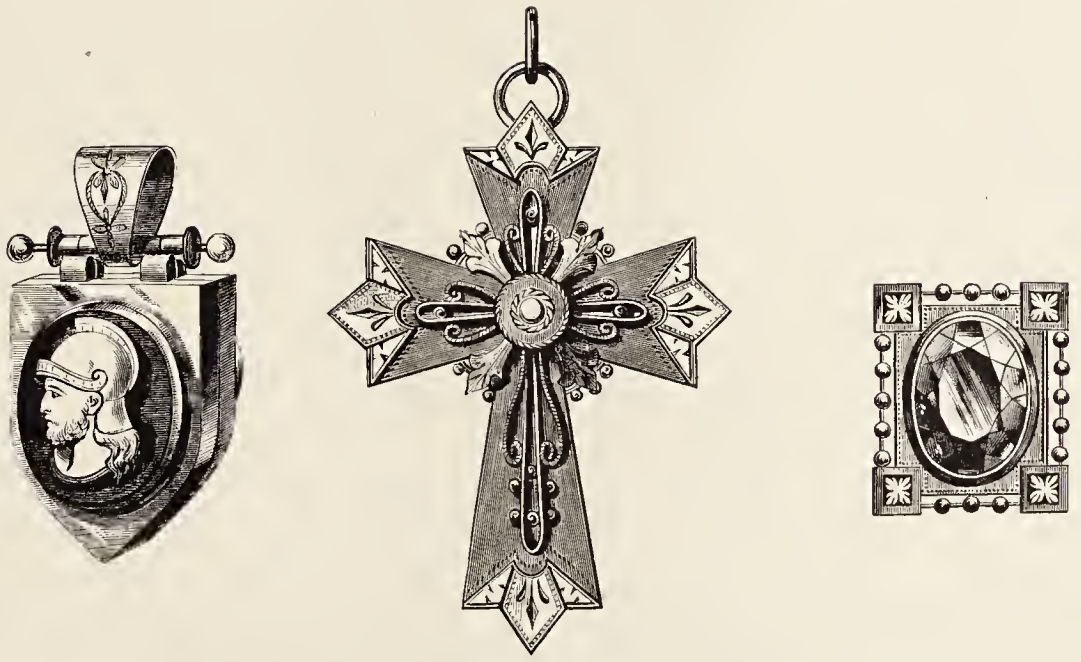
We turn now to a branch of manufacture which is but a civilized expression of a desire inherent to human nature—the love for personal adornment. It is the same in the savage of the wilderness as in the citizen of Paris. The Indian woman smearing her face with colored clays, the negro hanging her string of shells about her neck, the lady at her toilette fastening jewels in her ears or clasping a bracelet upon her arm, each and all are actuated by the same desire to beautify themselves. The art of the goldsmith and jeweler owes its perfection to this feeling. On the next page our engraving illustrates specimens of this work from the establishment of Messrs. Morgan & Headley, of Philadelphia. Looking at these objects from a utilitarian standpoint, what could be more useless than they? How senseless it seems to weight one's body down with metal trinkets! Fortunately, however, the refinements of civilization find other expression than in requiring all objects to be useful.

We are now considering its other great want—the ornamental. Here are six pieces, each one of which helps to supply this want. Of the lockets, all gain increased beauty from another art, of which we shall speak at some future time—the art of the cameo-cutter or lapidary. Each of the designs is different, some suggesting the study of antique models, others the artists' own design. The cross is of a different pattern from any of the other specimens. It is made in two different colors of gold, the points of the lighter-colored metal. This is a favorite style of workmanship at present, and is capable of excellent effects. The sixth specimen, as far as the goldsmith's work is concerned, is but the setting of a dozen gems. In the centre of the pin is a large amethyst surrounded by a narrow rim of gold, about which again is a string of small pearls. The whole effect is very neat and pretty.

No more appropriate exhibit could have been made by the New England Granite Company, of Hartford, Connecticut, to our Centennial than the spirited statue, an engraving of which we present to our readers on page 18. It is a

statue typifying the brave company of men who banded themselves together in the early days of the Revolution, swearing to be ready at a moment's notice to stop whatever work they might be at and take up their arms against the invader. It is a "MINUTE-MAN," one of those brave fellows whom Paul Revere, in his





Jewelry; Morgan & Headley.

memorable ride of the 18th of April, 1775, called from the fields and the plow, shouting to them as he went galloping past, "The British are coming!" In a few hours, over a hundred men of the "train-band"—as it was sometimes called—were collected together, and the next morning, under gallant Captain John Parker, the little band stood drawn up in the streets of Lexington determined to fight

for those liberties which were dearer to them than life. Every schoolboy is familiar with the events of that day—the famous 19th of April—and the part

Carl Conrads, Sc. *The Minute Man: New England Granite Co.*

played by the famous Minute-Men afterwards. But we can appropriately introduce here those charming verses delivered by Ralph Waldo Emerson on the

unveiling of the statue last year on the one-hundredth anniversary of the famous battle :—

By the rude bridge that arched the flood,
  Their flag to April's breeze unfurled ;
Here once the embattled farmers stood,
  And fired the shot heard round the world.

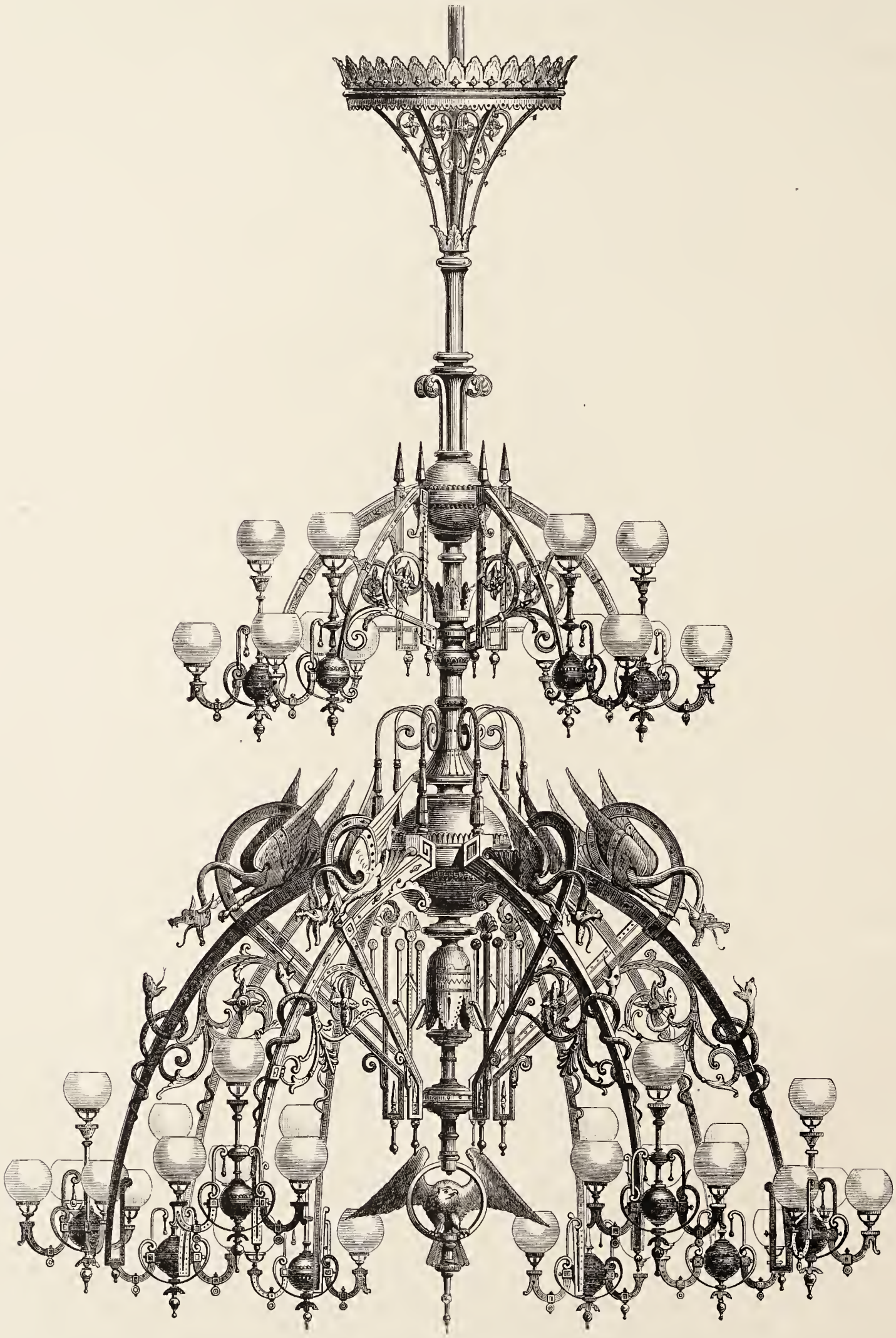
The foe long since in silence slept ;
  Alike the conqueror silent sleeps ;
And Time the ruined bridge has swept
  Down the dark stream which seaward creeps.

On the green bank, by this soft stream,
  We set to-day a votive stone ;
That memory may their deed redeem
  When, like our sires, our sons are gone.

Spirit that made those heroes dare
  To die, and leave their children free,
Bid Time and Nature gently spare
  The shaft we raise to them and Thee.

The statue itself needs but little description. The reader can see for himself how admirably the artist has embodied the idea. The man stands in strong, free position, one hand resting upon the plow he is about leaving, the other grasping the musket is extended forward, and over the arm is thrown the cloak as if hastily picked up at the sudden summons. The face wears a look of determination—the look of one who is ready to do and die if need be—and the sculptor has given with rare art a loftiness, a look almost of prophesy to the expression.

Our next engraving is from an exhibit made by a PHILADELPHIA firm, who have had the products of their factories in every one of the great exhibitions where their work, by its beauty and finish, as well as its artistic design, has always attracted great attention. But CORNELIUS & SONS, the firm of whom we are speaking, quite outdo themselves in the quality of the work they have prepared for exhibition in this our first great International Exposition. The illustration we give on the next page is in every respect a work of art. It is a seventy-two-light CHANDELIER of Lacquer gilt in imitation of fine unalloyed gold. In style it is Greco-Medieval. The arcs springing from the central globe and



Chandelier : Cornelius & Sons, Philadelphia.

supporting the highly ornate fixtures, are surmounted by "grotesques," introduced with excellent effect. All the proportions of this beautiful piece of work have been carefully studied, and the result is before us in this illustration,—one of the most graceful and harmoniously arranged specimens of this famous firm's productions which we have seen.

From the fine collection exhibited by the MERIDEN BRITANNIA COMPANY, we have selected for illustration the beautiful EPERGNE, destined, doubtless, some day to adorn the board of some lover of true art. Nothing adds so much to the effect of a handsomely-arranged table, spread for a feast, as the graceful centre-piece, which should be the most attractive, as well as elaborate, piece of table ornament present. But an ornament such as this is not intended to be admired only in the dining-room; in the library, in the parlor, or in the drawing-room it is equally appropriate. There, its various receptacles filled with tastefully arranged flowers, it will always be attractive. The Company furnishing this exhibit—which we present on the following page—make a specialty of silver-plated ware, and of these goods their immense works at WEST MERIDEN, Connecticut, turn out thousands of beautiful specimens each year. The example before us is an Epergne of unusually large size. It stands 48 inches in height upon a base of 40 inches in length. Its general material is what is usually called German Silver, hardened with white metal. This material admits of a very perfect finish either in silver or gilt, both of which methods have been used in the present instance, and the whole is further adorned by the engraver's chisel. From the base—which is made of nickel-silver polished like a mirror to represent water—rise four graceful columns supporting a dome. On either side of the pillars, standing in shells of a conventional pattern, are figures. On one side, Amphitrite drawn by walrusses; on the other, Neptune, his car attached to a pair of Tritons who are heralding his approach. From the centre of the dome rises a central shaft supporting a bowl of very graceful design, around whose base rise four arms curving outward and holding suspended from their extremities four other bowls of similar pattern to the first, presenting as a whole an extremely graceful and appropriate design.

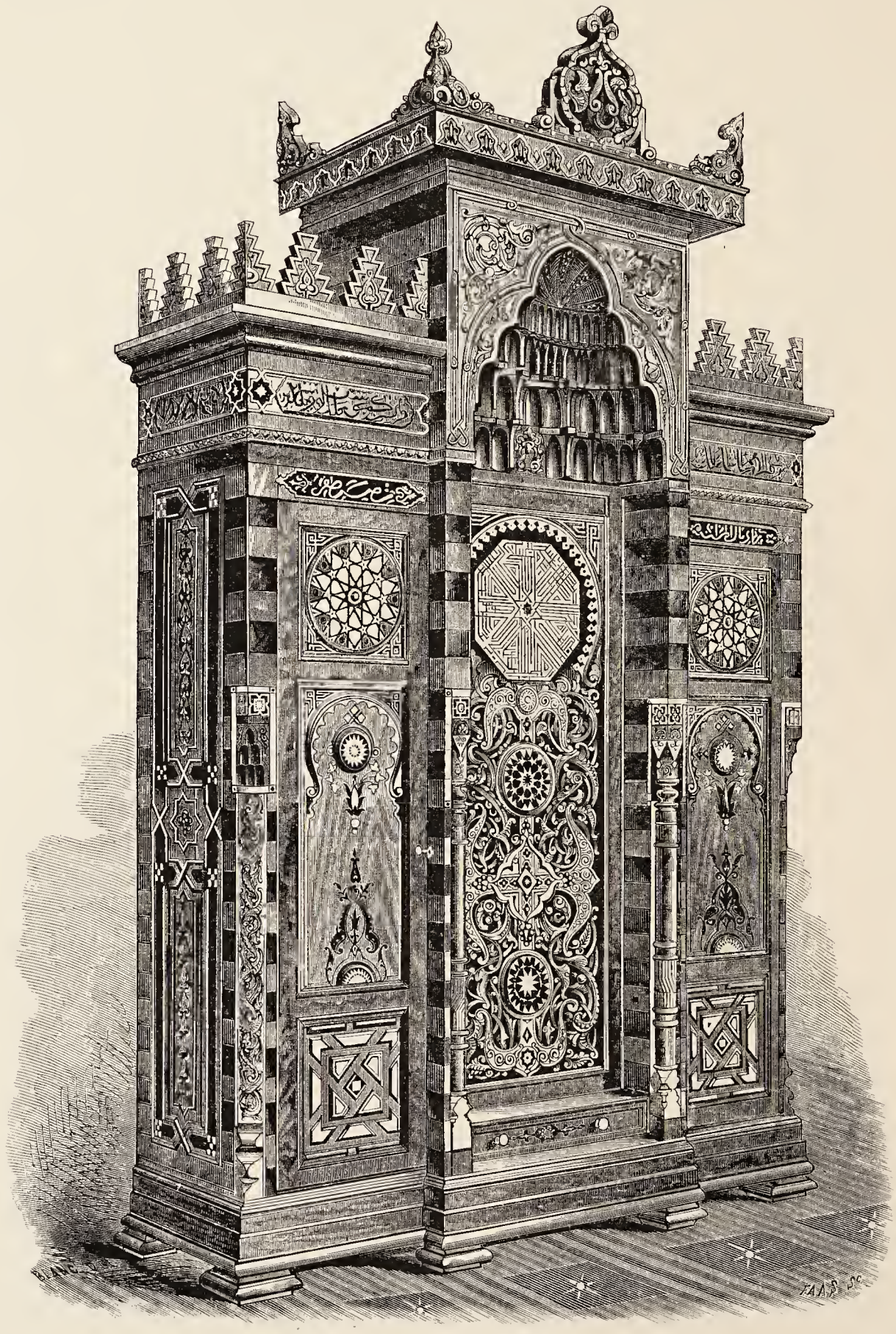
From distant CAIRO comes one of the gems of the Exhibition, of which we give an engraving on page 24. It is a CABINET, designed in a style of the purest Arabic, one of the contributions of the celebrated PARVIS, whose *atelier* is

The Neptune Epergne: Meriden Britannia Co.

well known to all art lovers who have visited the interesting city of the East. This fine example of the cabinet-maker's skill is built of sycamore-wood and ebony. It is inlaid with ivory and mother-of-pearl, in those highly effective patterns that are at once the admiration and the wonder of other nations. Every detail has been worked up and studied from the specimens of the best period of Arabic art. Nothing could be more effective than the result. There is but little carving—none indeed in high relief—and yet an effect has been produced more ornate than any carving. The richness of the tracery in the central panel is particularly fine, and taken as a whole it deserves commendation of the highest description. The possessor of such a piece of work as this Cabinet would never tire of it, simply because the harmony of its parts would be constantly asserting themselves, and, like in a good picture, new beauties would constantly be revealing themselves.

This form of decoration, consisting of fantastic combinations of flowers, fruits and branches, or, indeed, of almost any intertwinings of graceful forms and lines in a repetition of the same pattern, is a characteristic of Moorish architecture that has been given a distinctive name—Arabesque. Ornamentation of this kind, either in sculpture or painting, has been found wonderfully effective; but it requires the exercise of the nicest discrimination. The perfection of its use is to be found in the Alhambra, the most perfect specimen of the best Moorish architecture existing at the present time. Its walls are particularly rich in Arabesques of various patterns, some of them of an astonishing intricacy and beauty. From Arabia the use of this style of ornamentation spread to Europe, and thence over the civilized world. We see examples of it every day in the ordinary decorations of our walls and houses and in the ornamentation of our vessels in common use. Painters and sculptors find it of the greatest assistance in making effective frameworks for their productions. Raphael's famous Arabesques in the Vatican will be recalled by many of our readers; and the use made by Kaulbach, quite recently, of some of these forms in his fresco painting is familiar to many. For the cabinet-maker a knowledge of the best specimens of these beautifully artistic designs is of great advantage. No better treatment of precious woods in *marqueterie* has been found than to follow, or, rather, to learn from, the forms designed by the old Arabians. Beautiful as is the exact imitations by the Florentines and Indians of natural objects such as

birds, flowers, etc., their copies, as a rule, show poverty of invention; whereas,



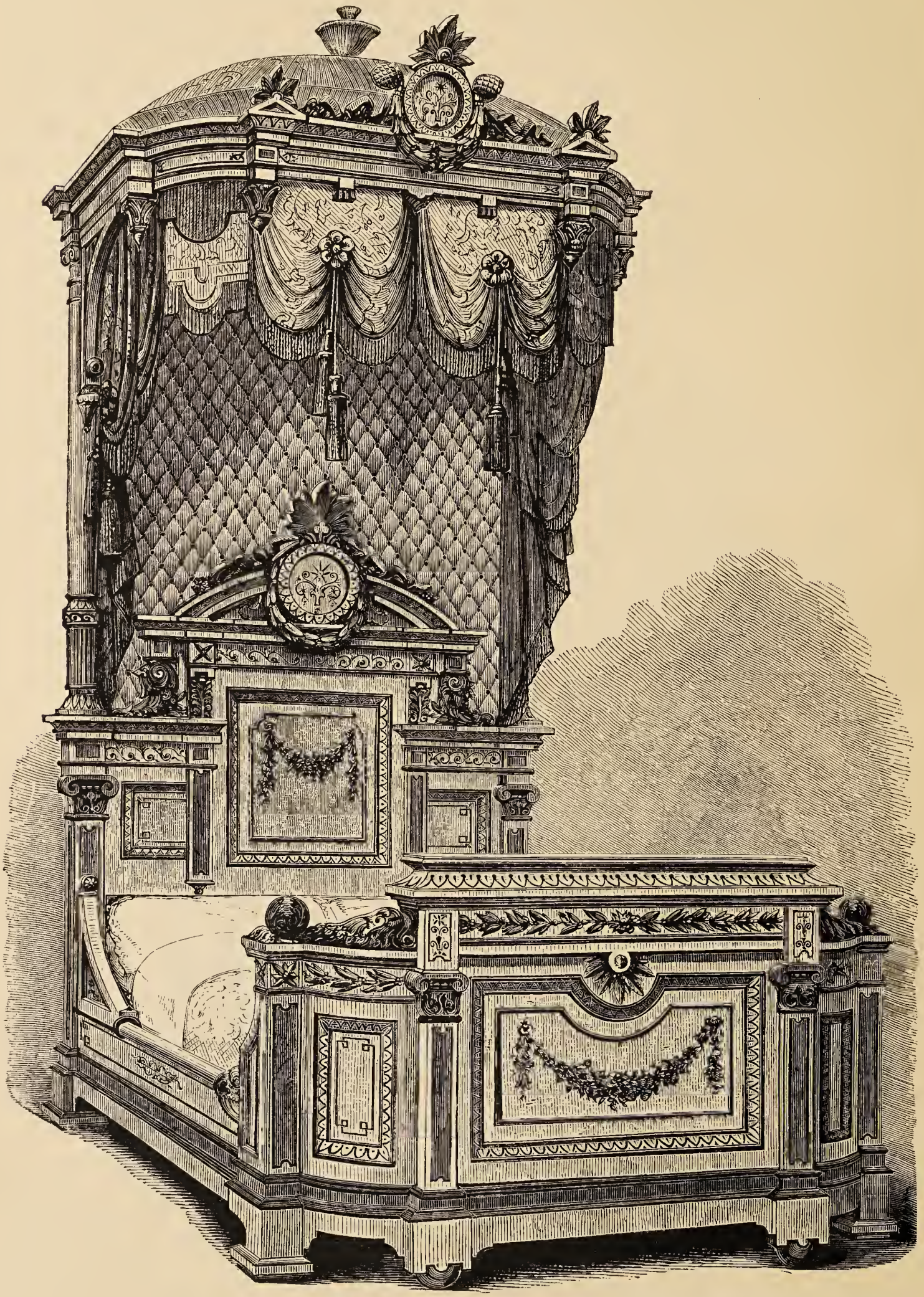
Cabinet: G. Parvis, Cairo, Egypt.

the Moorish work, while sufficiently conventionalized, shows a freedom from mannerism and richness of fancy that can hardly be too highly commended.

Our next illustrations are from a region the antipodes of Egypt in climate and character. The terra-cotta manufactories of COPENHAGEN are among its chief attractions; and the WIDOW IPSEN'S great establishment is one of those to which all travellers pay their respects, and from which they bring back the

Vases, Terra-Cotta: The Widow Ipsen, Copenhagen.

conviction that Art has found a home amid the snows of Denmark. The firm is fully represented in the Exhibition, occupying a separate room in the Danish department. We select four vases and a ewer, which fairly illustrate the grace and beauty of which terra-cotta is susceptible under artistic treatment.



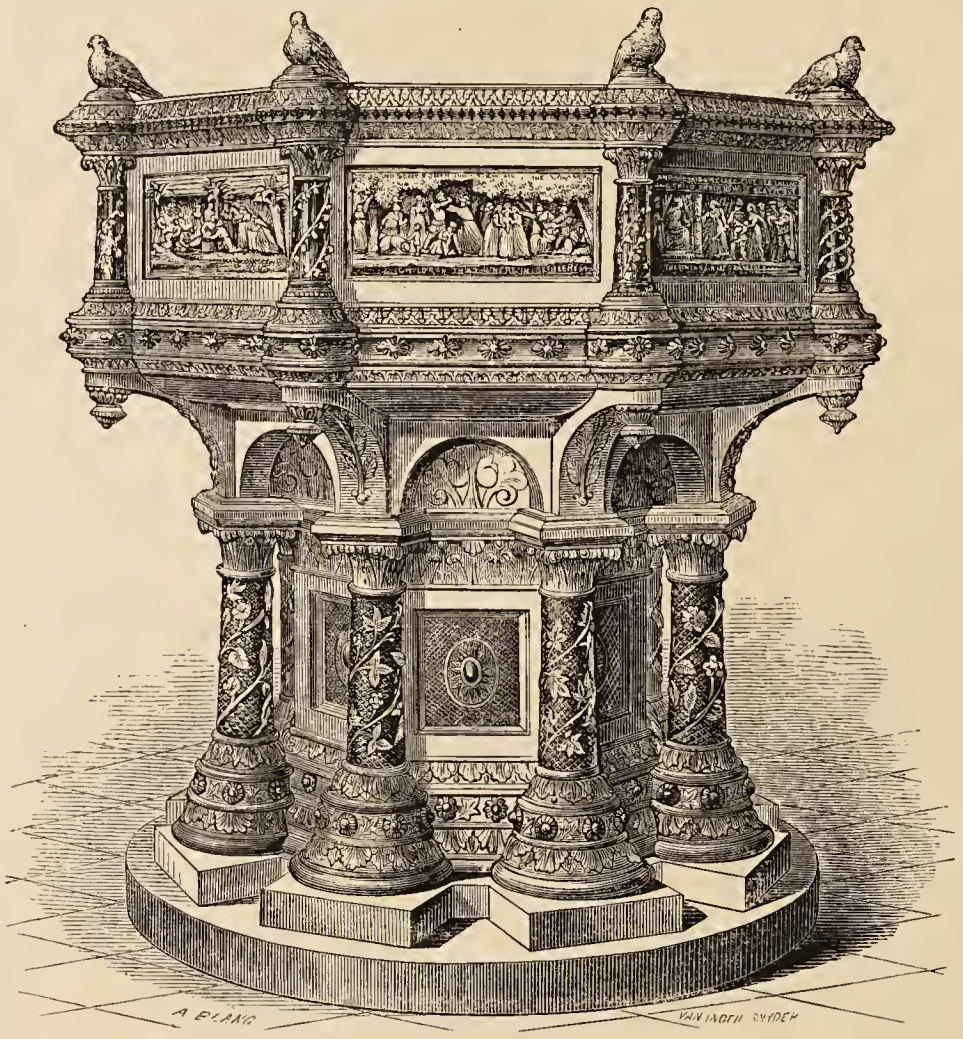
Bedstead, Renaissance: Herts & Co,

The baking of earth, especially of the stiffer pipe-clays, to form utensils, is one of the earliest achievements of men emerging from the savage state. At first, of course, there was no attempt at ornament. Then a rough checker-board pattern was scratched upon the sides of the pots and jars. The next stage was to lay a sort of scroll-work in black glaze over the earthen ground; and the pattern soon developed into conventional representations of plants and animals, of which the graceful foliated pattern around the neck of the larger vase is a beautiful instance. A still further refinement was the covering of the ground with the black glaze, leaving the pattern prominent in the natural color of the earth. The shape of the vases selected is simply charming, and gives a striking idea of the ductility of the material to the shaping of fire. The decoration is painting by hand, and the artistic feeling evinced in the patterns causes a regret that the finished product should be at the mercy of a careless servant. But this is an age when we have our treasures in earthen vessels, and we must assume that the buyer of such shapely ware will suffer no profane hands to be laid upon his terra-cotta. What an education for the eye it would be if Mr. Eastlake's suggestion were everywhere adopted, and the tasteless china upon our wash-stands replaced by this beautiful ware, with its Greek figures and clear-cut conventional foliage!

The household furniture in the Exhibition is especially worthy of note. The English division abounds with beautiful apartments, fitted up with all the *meublerie* of a parlor, dining-room or bed-room. The influence of the South Kensington Museum and of the Schools of Industrial Art, which derive their stimulus from that Museum, is nowhere so apparent. But pending the establishment of similar institutions in this country, we have some good work to show. The bedstead from MESSRS. HERTS & COMPANY, of New York, which is represented on page 26, is in the "Renaissance" style, as the ordinary phrase is—a style sufficiently comprehensive to cover much variety in design and treatment. The richness and the character of the ornamentation are exceedingly striking. The contrast of the birdseye and mottled maple with the carved mouldings of flowers and fruits, of St. Domingo mahogany, is very rich. The draperies are of raw silk, drab and blue, and the canopy is of light blue silk tufted. Notice especially the graceful ornament in the circular panel at the head of the bedstead proper. It represents roses branching from

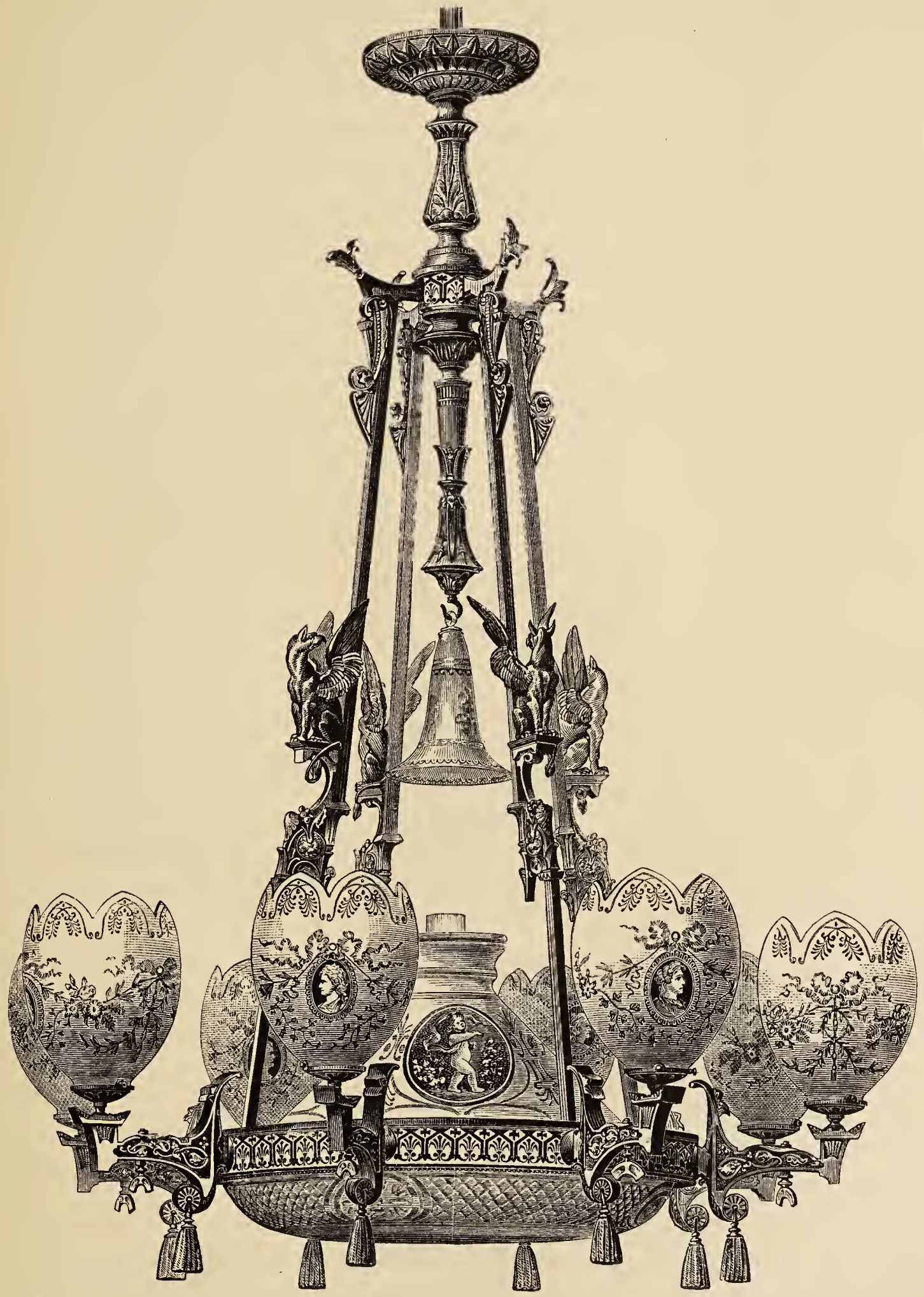
a stem in true Renaissance fashion, and much resembles the flower-pot decoration shown in the Margarete wall-paper on page 5.

A most exquisite display of Faience ware is made by the DOULTONS, whose pottery is better known as the Lambeth Faience. The general characteristics of this pottery are well known—its softness of tone, its careful contrasts of subdued tints and avoidance of brilliant color. This is combined with an elaborate and beautiful ornamentation, in which foliage and sometimes gro-



Font: Doulton & Co., Lambeth, London.

tesques alternate with compositions in low relief which might come from the hand of a painter. Thus, in the Font which is the subject of our next illustration, the lower part, and especially the sustaining columns, are covered with a delicate tracery of leaves, or paneled in a minute diamond-shaped pattern, while the upper projecting portion is separated by smaller columns into panels, each of which is occupied by a Scriptural scene, chosen with reference to the purpose of the font. The beauty of these panels cannot adequately be represented by any engraving; but our picture will show the complexity of



Chandelier: Mitchell & Vance, New York.

the detail, and the vigorous attitudes and gestures of the human actors in each little drama. We can see also that the middle panel turned towards the spectator represents "The Slaughter of the Innocents," and that "The Judgment of Solomon" and "The Adoration of the Wise Men" are the subjects respectively of the right and left panels. "The Dove of Peace" broods over the font. Each column is wreathed with the acanthus or the lily. There is a solidity and strength in the architectural arrangement which satisfies the eye. The columns seem worthy supporters of the heavy entablature, while the finish of detail is never allowed to mask the construction. This is true Art, whether in a church or a cabinet.

Nymph and Concha: Watcomb Terra-Cotta Co.

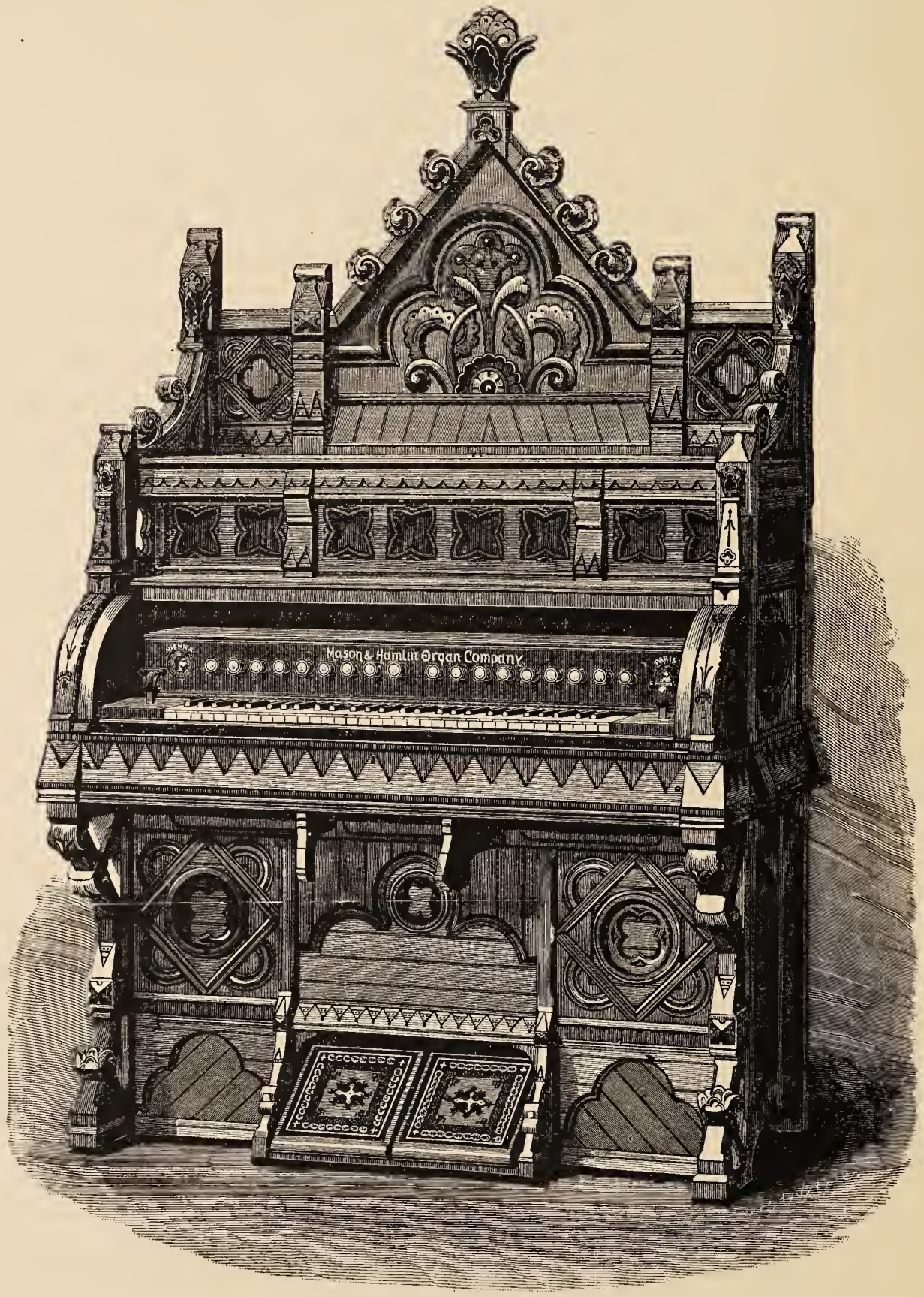
Industrial Art does not fully achieve its end unless all articles of domestic use are redeemed from the hopeless ugliness into which they have fallen, so that our eyes shall be pleased and not pained by the surroundings of our daily life. It is noteworthy that most of this ugliness is produced by the desire to decorate, which, in the work of men destitute of artistic taste, results in meaningless and disagreeable perversion. There is a certain beauty in fitness, and a coal-scuttle or a kitchen-pail which is evidently constructed so as best to fulfil its purpose is fully justified. If, in addition, the lines of structure can be made pleasing to the eye, so much the better; but the first requisite is that the thing shall do honest work. But a curved or twisted or bedizened piece of furniture, whose shape or ornament interferes with its function, is hateful to gods and men. Then, too, we must recognize that some pieces of furniture, such as cabinets or sideboards, lend themselves naturally to a beautiful construction, while others, such as chandeliers, offer much greater difficulty. The problem is to suspend a

large and heavy mass in the air, and yet to overcome, by the grace of its outlines and the beauty of its ornament, the reluctance of the eye to see the law of gravitation apparently violated. This difficulty proves too great for most designers, and frequently, in attempting to elaborate and ornament their work, they fall into more positive ugliness. A really graceful design, therefore, for a chandelier, deserves much higher praise than the facile prettiness of a vase. Such a design is shown in the eight-light chandelier of MESSRS. MITCHELL & VANCE, of NEW YORK, on page 29. Their design has achieved a decided success in the present case. The ornamentation is elaborate but not overloaded, and the chandelier has an appearance of lightness in spite of its broad girth. The bell over the central lamp is a happy conception, and much of the glass decoration is gracefully executed. The designer has had more difficulty in a construction of metal than he would have met with in glass, which, we are glad to see, is coming extensively into use. There is something peculiarly appropriate and artistic in the use of glass for a centre of brilliancy, and we may soon hope to see our parlors and dining-rooms lighted up by lustrous chandeliers which shall reflect the light in every prismatic color.

"When Music, heavenly maid, was young," Pan piped upon a reed and Apollo played upon his flute; and both reed and flute were the essence of simplicity and grace. When David exorcised the evil spirit from Saul with his harp, the instrument was still picturesque and beautiful. But when music became more complex and more specialized, the difficulty of putting the "soul of sound" into a worthy dwelling-place became evident. What can be uglier than an ordinary piano, with its carved legs supporting a clumsy oblong mass of mahogany or rosewood? It is one of the mysteries of cabinet-making that we cannot get straight-legged furniture. The makers have got it into their heads that the curve is the line of beauty, and it is of no use to urge that the grain of wood is straight, and that, in consequence, every deviation from a right line must detract from the strength of the material. We must meet them on the æsthetic ground, and say at once that a bow-legged piano or table is as ugly as a bow-legged man.

The beauty of musical instruments, moreover, should always lie rather in their shape and adaptation to their purpose than in the richness of their ornamentation, which is in better taste if subdued and simple. In this respect the

instrument selected for illustration is without fault. Messrs. Mason & Hamlin have constructed an organ which we doubt not has all the excellent qualities



Eastlake Organ: Mason & Hamlin.

of tone and resonance for which their instruments are noted, and whose exterior is pleasant to the eye. The decoration is quiet and massive, and often

of great beauty. It is conceived in the Eastlake design, so far as that can be carried out in the construction of an organ. Our own taste would suggest an even simpler arrangement of the mouldings and panelings, and a straightening of the lower lines; but we ought to be sincerely grateful to MESSRS. MASON & HAMLIN for giving us an instrument free from all the abortions in the shape of ornament with which many pretentious instruments are disfigured. The public taste in this respect is rapidly improving. There are some beautiful pianos in the English department of the Exhibition—faultless in style and taste, though generally at a price beyond the ordinary reach. But this expensiveness is an accident, and will soon disappear. When once machinery has been constructed for turning straight legs, straight legs will be no more costly than crooked. In the meanwhile we must pay the penalty for living in an age of transition. After a time, perhaps, we shall not regret even the pipe of Pan, "blinding sweet by the river," or the flute of Apollo victorious over Marsyas. That sweet easy melody of an age when performer and artificer were one has given place to grand orchestras and full choruses. Music has a power and a scope undreamed of by the ancients. When we listen to Wagner's Centennial March, we feel that the visible form and body of so potent a spirit as that which resides in a full orchestra is a matter of secondary importance.

Our next illustration is drawn from one of the Fine Arts—that of Sculpture—which becomes Industrial only by its adaptation to machinery and susceptibility of reproduction. We do not expect from any machine the qualities of imagination and creative thought which make a great sculptor, yet when the conception is simple, and especially when the shaping hand of the artificer is allowed to give the final touch, the result may be a memorable one, to such perfection have mechanical processes now arrived. Our illustration represents a more legitimate use of such appliances than American chromo-lithographs. "Memory," from the workshop of the NEW ENGLAND GRANITE COMPANY, who gave us the fine "Minute Man" already illustrated, is represented by a female figure, whose face indicates the time of life between girlhood and middle age. She is old enough to have a past, regrets and losses, happy and unhappy memories; but life is still high in her veins, and the future is still before her. Her thoughts now are with the past. She is

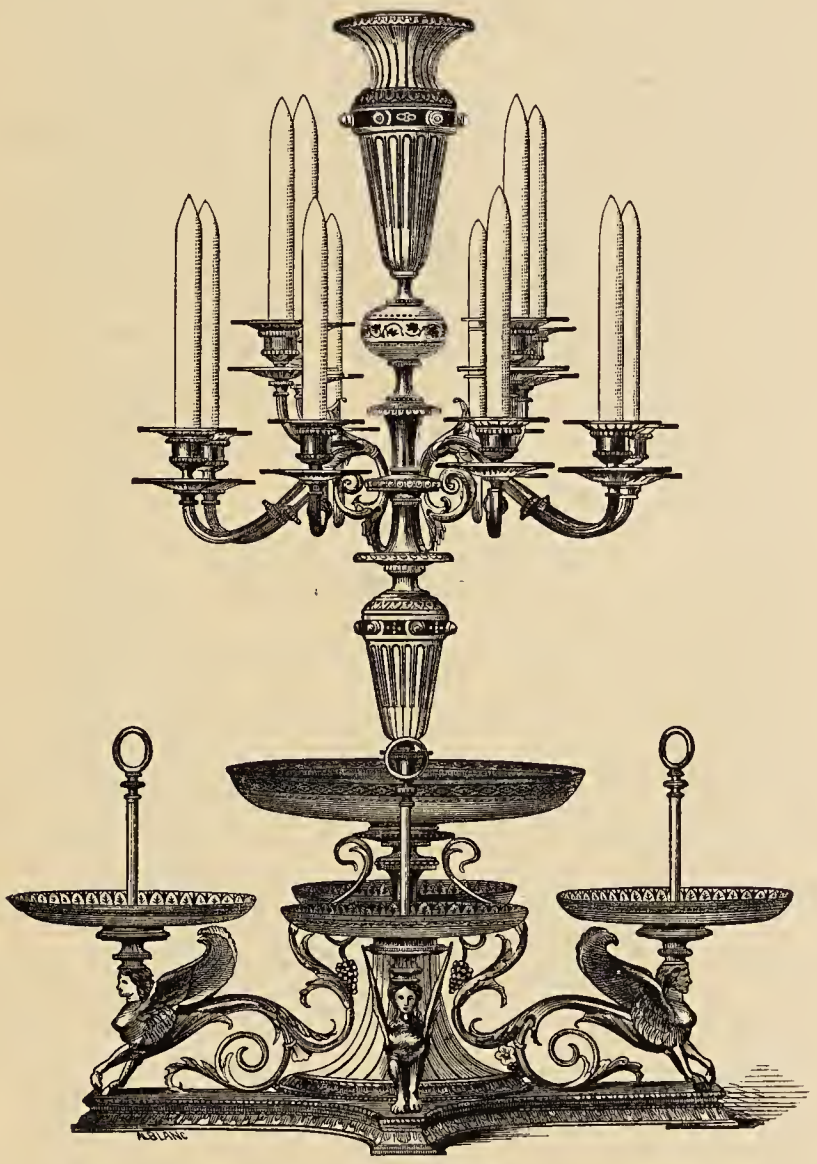
seated on a mass of rock, in the attitude of remembrance and retrospection. Her face shows a softened, half-regretful mood; her eyes are downcast and half closed; she has forgotten time and place. The left hand, lying on the lap, holds a chaplet of roses. The right arm lies across the left. Notice the ease of the position, and yet the absorption indicated in every turn of limb. One knee is raised, and the foot supported upon a slab of rock; the other foot is upon a lower stone, half slipping off, yet supported by the heel. The attitude and feeling of the statue are difficult to render by means of Industrial Art, and the designer has achieved a remarkably good result.

Memory: New England Granite Co.

Perhaps there is no surer test of civilization than the desire for regular and comfortable meals. The savage tears his food to pieces wherever he finds it. He passes days of hunger, and makes amends by a gluttonous feast. The civilized man eats at the same hours every day, and surrounds the time and place of his dinner with safeguards against interruption and appliances of comfort. Eating as a fine art may be said to have begun with the Greeks, who lay on couches around their tables, and made their dinner the reunion and chief event of the day. The Romans followed in the same path; and when manners grew milder with the decay of feudalism, the coarse revel of the great hall gradually gave place to the elegant dinner of the gentleman.

The luxurious court of Louis XIV was especially noted for the magnificence

of its table appointments; and in more recent times it has come to be almost a test of refinement that a lady shall secure for the inmates and guests of her house a pleasant hour over the principal meal of the day, when the cares of the morning shall be laid aside, and all the surroundings shall add to the gratification of the palate. No single element is so necessary to this result as



Épergne and Candelabra: Lobmeyr, Vienna.

a pleasant light. The brilliancy of gas, desirable in some ways as it is, has great drawbacks. Its light is glaring and harsh, and when thrown into the eyes of the diner is extremely disagreeable. So too is the heat which, as the meal goes on, a large chandelier begins to radiate. Then, too, the position of the light, directly above the heads of the guests, is very amendable. To meet these objections, we may suppose, HERR LOBMEYER has designed the *Candelabra-Épergne*, which is given on this page. A glance will show how

many requisites are united in this admirable Épergne. It stands upon the centre of the table, holding a dozen wax or spermaceti candles, whose soft light is equally shed on every side. The top is a bowl for flowers, while the larger dishes below may be used either for flowers or fruit, according to the taste of the hostess. The shape of the Épergne is such that it does not interrupt the vision—a capital point, for it is frequently disagreeable to be shut off from your *vis-a-vis*. The candelabra are simple and strong-looking, not liable to break. The ornamentation is quiet and effective. If we add to the Épergne a pair of gas-burners fastened against the side of the wall, at

Necklace, Tortoise-Shell: J. S. Adams & Co.

such a height as not to be offensive to the eyes of the guests at table, we shall have the perfection of light in our dining-room.

Tortoise-shell is a material so beautiful in itself, and in some respects so easily worked, that in spite of its fragile nature and the loss which manufacturers undergo from breakage in the process of working, it has been found so profitable as to insure for it a permanent place in our jewelry shops. The play of light upon such a necklace as that represented in our engraving, from the establishment of Messrs. J. S. Adams & Company, Providence, Rhode Island, is really enchanting. The eye loses itself in the soft depths of the

shell. The pattern is simple, but very pretty, and the pendant shows to great perfection the beauty of the material. As jewelry for the morning, to wear

Mirror: Herr Lobmeyr, Vienna.

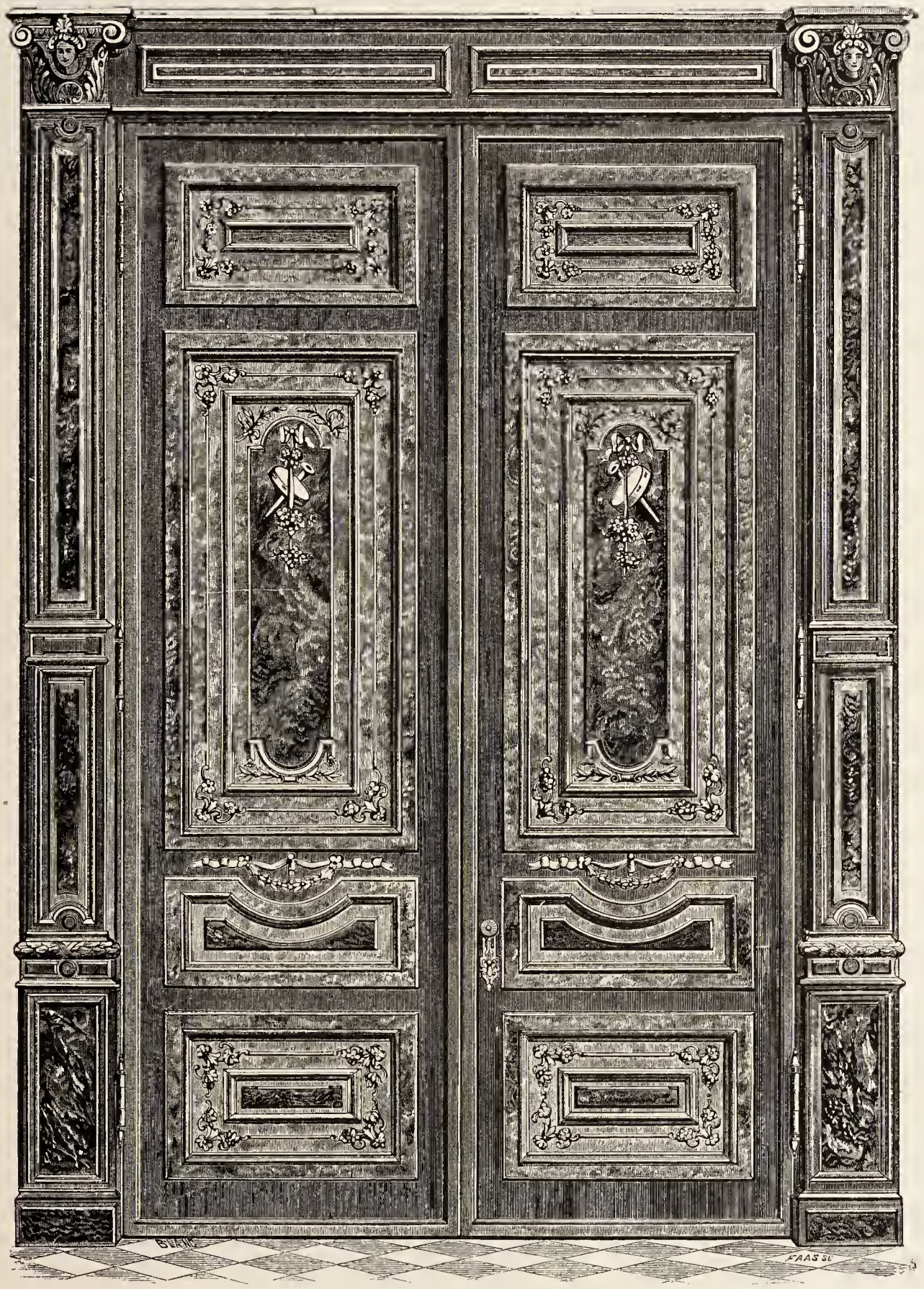
against a simple house-dress or a walking-suit, there is nothing so serviceable. It is easy to put on, beautiful to see, contrasts well with dress of any color, and is comparatively inexpensive. An artistic design is nowhere more exquisitely effective than in tortoise-shell.

It is a curious fact that for many centuries before glass was made into plates, or thin slabs with flat surfaces, it was blown and turned and twisted into the most delicate and artistic shapes, such as bowls, goblets and vessels of all sorts for holding liquids, and some of the more ancient specimens of this art—things fragile and as intricately interwoven as a spider's web—preserved uninjured through the ages that have witnessed the overthrow and destruction of the cities where they were made, are now to be found treasured in our museums, the wonder and despair of the glass factor of to-day.

But could an ancient Phœnician, say one of those who, by a process now a lost art, constructed one of these fairy-like vases—could he be brought face to face with the common things of every-day use made from the same materials as his vase, what would be his astonishment!—to see himself, for instance, reflected in the MIRROR, on preceding page, which is one of the exhibits of LOBMEYR, of VIENNA. Another *ego* looking him in the eye, from some undefinable position in space—a moving, breathing human being whom he cannot touch, whose lips move but do not speak, who walks without sound, who vanishes from beyond or behind the frame in which he appears! The phenomena of reflection, to us so simple, would be, to one seeing it under such circumstances, above all things, marvelous. The knowledge that he was looking at his own image would not come until later. He would simply see a man like himself, moving as he moved, under the group of cupids floating above him.

But to us, with whom the use and character of the mirror is familiar, the special attraction is not, or presumably should not be, what we see reflected from its surface. Certainly our present interest is in its beautiful surroundings. The grace and artistic merit of the design gilded on the panels of the side rails; the happy way in which the leaf and flower ornamentation of the corner panels is treated; the harmony of all the minor details to the severe simplicity of the whole—all of these are deserving of praise, and should gain for the workmen and the artist places in the first rank with their comrades. The idea of using the surface of the upper part of the mirror as a ground on which to paint a picture is peculiarly charming—more especially for such a one as this. Obviously, in such a position and on such a surface but one idea can be conveyed suitably; that is, floating in the air. And this the artist has done most successfully. It is a lovely group, well conceived and capitally

drawn—the little cupid guiding the swan seeming, indeed, to be floating along.



Door: Allen & Brother, Philadelphia.

Our next engraving is of a kind to require but little description other than to call attention to its technical merits and to indicate the materials and

method of its construction. It represents a pair of large double doors, very highly polished, suitable for the entrance into a drawing-room, or into any of the more elaborate apartments of a mansion. It is an excellent specimen of

Entrée Dish, Repoussé Silver: J. E. Caldwell & Co.

Tureen and Salver, Repoussé Silver: J. E. Caldwell & Co.

the work of Messrs. Allen & Brother, of Philadelphia. The leaves of this door are composed of highly-polished walnut, with ornamented panels of alternate strips of precious woods of different colors, giving a pleasing relief and

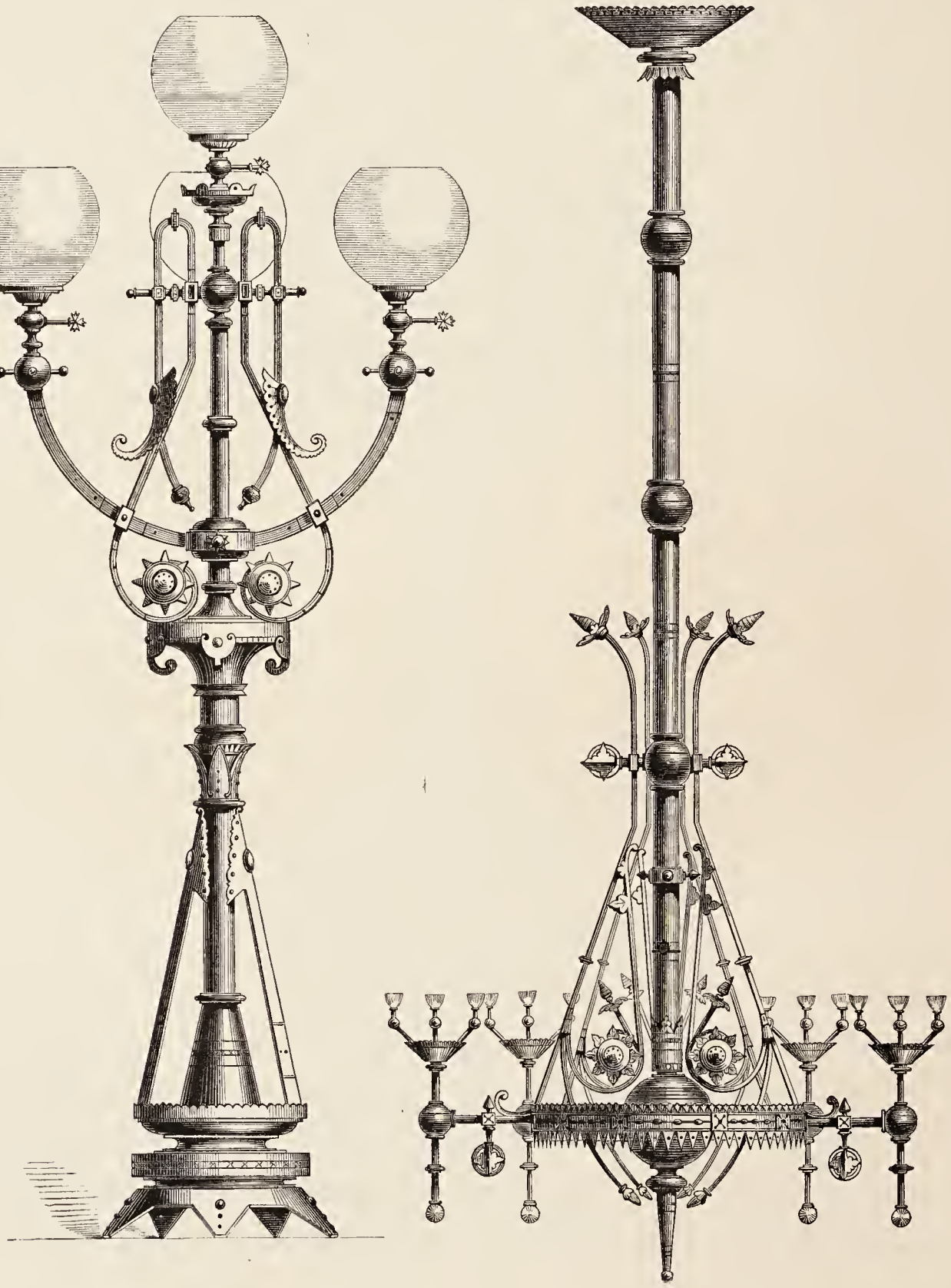
effect of light and shade. Scroll patterns and some curved lines are introduced into the lock-rail and break the severity of the outlines. On each of the main panels a finely-finished bit of hand-carving has been affixed by way of ornamentation, and the scroll surrounding them is happily introduced to lighten the upper panels. The lower divisions of the jambs are inlaid with slabs of finely-variegated marbles, above which, and separated by fillets of a chaste design, are narrow panels of the same precious woods as the door; the whole being surmounted at the lintel by an elaborate design in high relief, which gives to the jambs the effect of pillars of which these reliefs are the capitals.

It is remarkable that common as was the use of doors among the ancient Egyptians, none of those used in their temples have ever been found. But that there were doors is evidenced by the holes in the side-posts or pillars in which the hinge-pins were fastened. It is possible that as the Egyptians were metal-workers these doors were of metal, but those used in their houses were usually framed of wood and often stained first, as at the present day. These doors were either double or single, and fastened by a bolt or bar similar to those now in use. The Bible contains many allusions to the door and entrance to the house, and in several places allusion is made to the custom of placing a man against the door-post and pinning his ear to it with an awl, in token of servitude. In the description of the building of Solomon's Temple we have the following description of the magnificent carved doors of the oracle and the temple:—

"And for the entering of the oracle he made doors of olive tree: the lintel and side posts were a fifth part of the wall. The two doors also were of olive tree; and he carved upon them carvings of cherubim and palm trees and open flowers, and overlaid them with gold, and spread gold upon the cherubim, and upon the palm trees. So also made he for the door of the temple posts of olive tree, a fourth part of the wall. And the doors were of fir tree: the two leaves of the one door were folding, and the two leaves of the other door were folding. And he carved thereon cherubim and palm trees and open flowers: and covered them with gold fitted upon the carved work."

It was also the custom in Egypt to build the better class of houses with a porch or portico in front of the entrance door, supported by columns elaborately ornamented with wreaths and garlands, decorating the frieze also, and inscribing thereon some legend of greeting or welcome.

Another custom among the Egyptians was the hanging of all doors opening on the street in such a manner that they opened inward. This too was the



Chandelier and Hall Lamp: Cornelius & Sons.

custom of the Romans, where it was made requisite by law. But it is a curious fact that the reverse of this was the practice in Greece, where, when a person was about going out of a house, he took the precaution to give several loud

raps from within in order to warn passers-by on the outside that the door was about to be opened.

Of the many branches of manufacture in which the Exhibition has demonstrated the ability of American manufactures to compete successfully with those from abroad, in no one department of art-industry at least, is our equality with, and indeed, in some respects, our superiority over foreign makers shown with greater distinctness than among the workers in the precious metals. In silver- and gold-smith work our prominent manufacturers make a display that we may reasonably point to with pride. The house of CALDWELL & Co. makes a very attractive show. Their *repoussé* work occupies the prominent place its merits

Dessert Plates : Brownfield & Sons.

deserve, among their other precious ware. We give, on page 40, two examples of this attractive and fashionable manner of decorating silver. The TUREEN is a veritable *chef-d'œuvre.* The graceful shape, antique in its lines, the elaborate, yet not too prominent ornamentation, and the fine execution of the work, are all worthy of the reputation of the firm exhibiting it. The COVERED DISH, though less pretentious, is worthy of notice. A set of these dishes, or such as these, could worthily be used in serving up a feast fit for the gods. *Repoussé* work could hardly do more than has been done with this dish. It is, literally, entirely covered with foliated and floriated designs, finely finished by a skillful workman.

Another show of which we, as Americans, may be justly proud is that of

Cornelius & Sons. Our illustrations of a Hall Lamp and a Chandelier, shown on page 42, are taken from a collection containing many specimens equally meritorious. In these days, when the correct furnishing of our homes is a matter of careful study and reflection; when true art principles are beginning to prevail, and attention is paying to the fitness of means to ends; people are making search for good and beautiful forms in the most ordinary appliances as well as in the more permanent objects, called fixtures. Cornelius & Sons have not only met this demand in their special line of goods, they even have stimulated it by exhibiting freely to the public thoroughly artistic designs. Such a Hall Lamp as the one we illustrate is as much an ornament to the apartment it illuminates

Dessert Plates: Brownfield & Sons.

as a statue in marble or bronze. So, too, with the Chandelier: the elegance and lightness of its proportions, the richness of its effect when all its burners are lit, is most noteworthy. It is with such every-day surroundings as these that we make our homes really and truly beautiful.

Perhaps one of the most astonishing examples of the adaptation of natural materials to ornamental uses is given in the art of the potter. The fabrication of rude vessels from the clay of the earth is almost as old as the hills from which the clay was dug. No traces of peoples or forgotten races have been discovered without the discoverer finding fragments of their pottery. From these rude beginnings grew up, little by little, an art which is one of the most universal in its use and employments of artizans of the industries of the world.

For uncounted centuries China—that treasure-room in which we are constantly discovering methods and appliances which were thought to be the result of our own modern civilization,—China has been making that form of pottery known as porcelain. Its manufacture in Europe is of a comparatively recent date, and in England still later.

Nevertheless, English potters, with characteristic attention to detail and

Buffalo Hunt: Meriden Britannia Company, West Meriden, Conn.

thoroughness of manipulation, within a few years of the establishment of the industry among them, began to produce ware of a superior quality. Only in the matter of design and ornamentation were they excelled by their more fortunate European brethren who were artists as well as artisans.

But coming down to the present period of Exhibitions, we see in the artistic progress England has made since her first World's Fair, and in the effort made to overcome her inferiority in the way of decorative china, one of

the most striking examples of the benefit of these great competitive examinations—for this, in truth, is what these huge shows amount to in their best sense. Such illustrations of the art-work of English potters, as we give on the preceding pages, is worthy of any Continental modern school. The DECORATED DESSERT PLATES, shown on pages 43 and 44, are from the STAFFORDSHIRE potteries of MESSRS. BROWNFIELD & SONS, and give ample proof of the art-education of their workmen. It is really quite impossible in an engraving to give even a suggestion of the delicate color which blends so beautifully with the soft porcelain of England, but our artist has faithfully reproduced the fine ornamentation in landscape and *genré* pictures which distinguishes these specimens. We give four different styles of design, each beautiful in its way, though they are, to our thinking, almost too beautiful to be applied to the use for which they are intended. The plate with the landscape medallion and the delicate vine spray surrounding it we should be tempted to frame and hang up as a *plaque* rather than to eat off of it. Nevertheless, we think no one would object to owning a service of such plates as these with which to honor his guests at a banquet.

From the MERIDEN BRITANNIA COMPANY, of WEST MERIDEN, CONNECTICUT, we have a group in the fine white metal, heavily silver-plated, which is their specialty, representing a scene such as cannot be witnessed outside of America. The artist, whom we feel safe in pronouncing an American, has desired to illustrate something exclusively our own. With this intent he could hardly have chosen anything more fully answering his desire than the characteristic group shown in our engraving on the preceding page. It is a BUFFALO HUNT, not as practised in our day, when the poor brutes are slaughtered by hundreds, for mere sport, by bands of white huntsmen armed with repeating rifles, but as in the days of old, before the crack of a firearm was heard, when the Indian of the plains hunted his game with the spear and bow. There is an equality in such a contest as this as makes the group one of thrilling interest. The supreme moment of the battle has been chosen. The infuriated bull, wounded by an arrow, has turned and is charging the hunter; the Indian, firmly bracing himself upon his unbridled steed, whom he guides by the pressure of the knees, is waiting, with uplifted spear, the onset. The horse, terrified, yet under too good control to fly, snorts and paws the ground. Action is expressed in every

muscle of each figure in the group; and one cannot but feel, after looking at it for a moment, a certain sensation of expectancy, a wish that the *dénouement*

Book-case: Prof. E. Gijani.

could be acted out, which are sensations attesting the realistic power of the artist. The group stands twenty-one inches in height upon a base twenty-

seven inches long. It has been carefully and skilfully finished, and would form a fine centre-piece for a buffet or mantle-shelf.

A beautiful example of the wonderful wood-carving for which the Italians have been famous since mediæval times is the BOOK-CASE exhibited in the Italian Court. It is designed and carved by Prof. Egisto Gijani, of Florence, after the style practised in that city in the fifteenth century. The material is European walnut, very highly polished. The base and plinth are inlaid with panels composed of figures, grotesques and masques carved in very high relief, with supporting columns at the sides of a singularly ornate design. A group of cupids standing upon a vase support another vase from which the slender shaft of the column proper rises. Surmounting the top is a symbolic group of figures supporting a medallion bust of Lincoln.

It is in looking at such work as this that we realize how greatly the knowledge of what is fine and beautiful in decorative carving in wood is due to the opportunity for study and training which a country like Italy, so rich in the best examples of this art and of art in general, can afford. The study of the wonderful carvings at Perugia or of similar works of the highest excellence inspires the artisan to attempt to imitate them. Even if he fails he has exercised certain art impulses in the right direction; and this process acting through the individual on the masses, has occasioned that modern *Renaissance* that, awakening to the glory of mediæval art, is now manifesting itself throughout Italy in two ways—the one in the astonishingly clever imitations of *tricento*, *quattricento* and especially *cinquecento* work, which is calculated to deceive even the shrewdest connoisseurs by the likeness to the original; and the other in an endeavor to do true, honest work, using the old masters simply as instructors who shall guide the student and encourage him to develop his own ideas, and not become a servile imitator.

The immense influx into Italy of wealthy amateurs and ignoramuses, the one anxious to get good specimens of good mediæval work, and therefore willing to pay liberally, the other determined to have something "antique," because it seems to be the correct thing to have, and as a consequence ready to pay exorbitant prices, has given a truly astonishing impulse to the trade of the dealer and the trade of the imitator. Rich as Italy undoubtedly was in art-treasures in those glorious days when art was still religion and religion

found expression in art, if but half the stuff annually carried off from her cities since then was genuine, she would long ago have been stripped of her glories; instead of which she is to-day a seemingly inexhaustible mine, growing richer rather than poorer to the intelligent searcher after art-treasures.

DANIELS & SONS, of LONDON, make one of the finest ceramic displays in the English section and, indeed, in the Exhibition. Their cases contain examples of the choicest wares produced in the famous Staffordshire potteries. We select

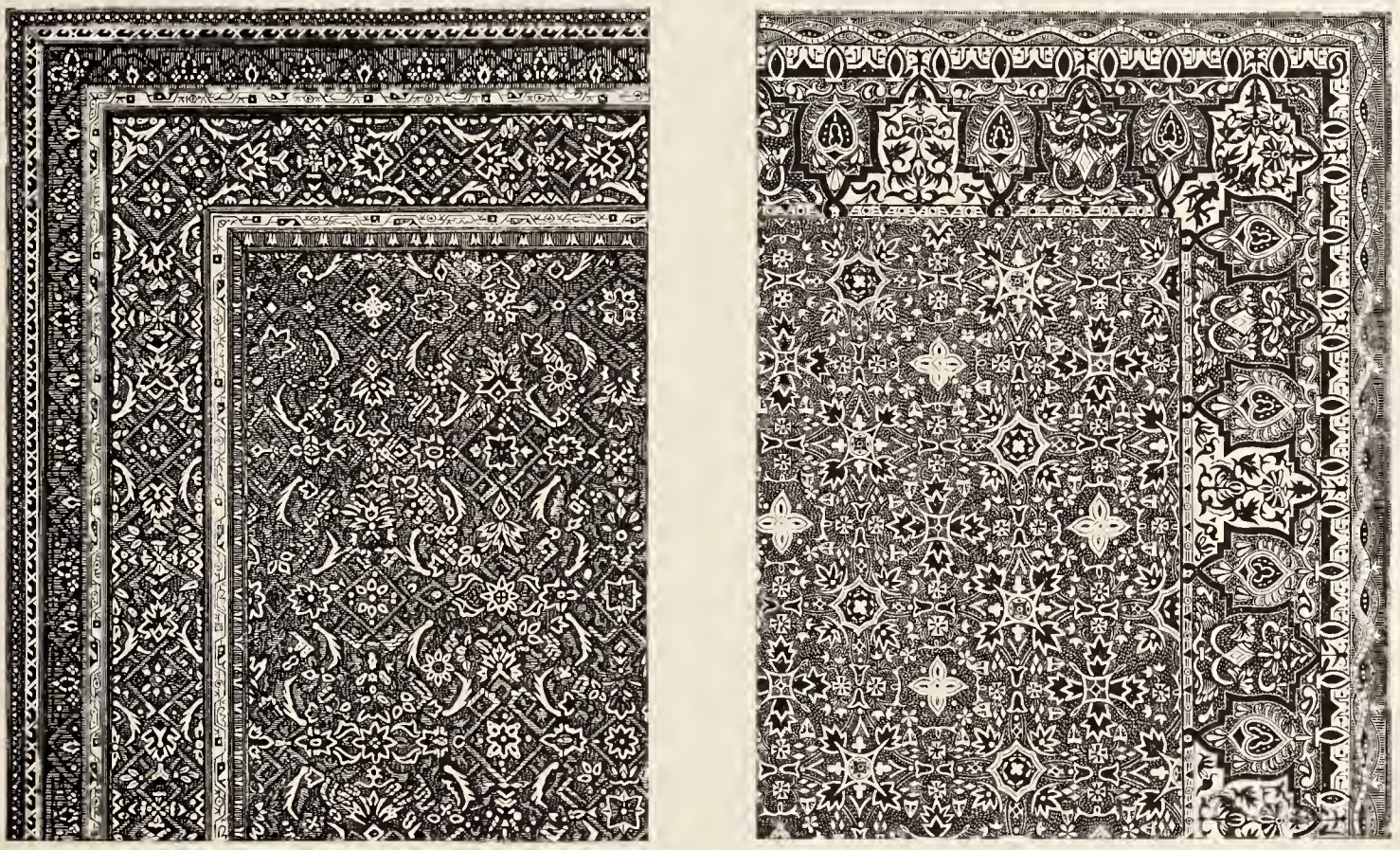
Porcelain Vases: Daniels and Sons.

for illustration two pieces—a pair of vases—which are among the *chefs d'œuvre* of their collection. Our engraving shows their beauty of form and the exquisite designs which enrich them. But the composition of the ware, and the method by which they are decorated, give them a peculiar and great value. The vases are porcelain of a deep chocolate color, of superior evenness and depth of tone. On this body, after the first firing, the design has been painted by a process known as *pâte-sur-pâte*, or paste on paste. Exactly how this was done was for a long time kept a secret at Sevres, where it was first invented

in 1847, by Ebelman. During the Paris Exposition of 1867, some English workmen—potters from Staffordshire—sent over to report on the display to their fellow-craftsmen at home, saw this ware, then first exhibited as a novelty, and discovered by inspection the secret process pursued in its production. At the beginning of the Franco-Prussian war, among other Frenchmen coming to London was M. Solon, of Sevres, who of course knew the secret. His services were at once secured by the Messrs. Minton, of England, and the successful production of the new ware was begun by them. As the name implies, the painting is produced by painting with a paste upon the body of the ware. This paste, when liquid, is a white opaque substance; but when hardened by firing, it takes a most exquisite translucency. It is this latter property that makes the finished result so beautiful. The body-color of the object painted is seen in different tints, varying in depth according to the thickness of the superimposed paste. The result is an appearance of high relief to what is actually *basso-relievo.* Naturally the artist must calculate these effects with the greatest nicety, and constantly look ahead, so to speak, to the transformation which the fire will produce on his drawing. A careful examination of our engravings will show what minute and delicate work is possible by this method. Each link in Cupid's chain, every leaf and flower, even the finer folds of the drapery, are expressed with exactness. This *pâte-sur-pâte* work has sometimes been compared with the famous Jasper ware of the Wedgewoods. In certain ways they are properly comparable. But while Wedgewood's productions have a certain well-defined sharpness of outline—resembling the cameos and intaglios which he took as his models—not to be seen in *pâte-sur-pâte*, the latter is incomparably richer and softer in its effect, blending its tints and tones with a subtlety and delicacy quite unapproachable by any other method.

It would be an interesting and instructive study to trace the influence of Orientalism upon European arts and customs from its earliest manifestations to the present time. We all know how much ceramic art is indebted to Persia and neighboring countries; and the invasion of the Saracens into Europe brought with it additional knowledge of the wonderful peoples who lived far to the southward of the Mediterranean and Caspian seas. Then came the invasion of the Moors, and the proud crescent threatening to dominate all Christendom. And then the tide turned. Slowly but surely the progress of civil-

ization—as we call it—made itself felt in these heathen countries, so rich in treasure and wonderful productions of the chisel and the loom. Each succeeding traveller brought back marvelous accounts of the wealth of the new country, its strange customs and beautiful wares. These wares, too, began to be generally known. At first, thought fit presents for the acceptance of kings and emperors, the enterprise of merchants brought them within the reach of the richer classes, and at length, as commercial facilities increased, so great was the importation that even the masses could buy.



Carpets: The Bigelow Carpet Co.

At the present day the desire for oriental shapes and patterns in furniture, household ware, room decorations, and textile fabrics has become so great that manufacturers in this country and Europe have turned their attention largely to productions of this kind. Let us pause for a moment and inquire why this demand is so universal. If we can find the answer, we discover a law of great practical value to the artisan. Some will say fashion has much to do with it, and others that the novelty of the designs is a chief cause. Doubtless there is much truth in the latter assertion; but mere novelty is not everything; back of that is a true art-feeling. Everything, even the most insignificant article

in daily use, bears the impress of artistic feeling. In their rugs, while no two ever are alike, the designs are of the very highest order. The material may

The Century Vase: Gorham Manufacturing Co.

not be as good as in other countries, and certainly the manner of hand-weaving cannot compare in evenness or finish or durability with our machine-made fabrics; but the blending of color, the spirit of the design, is far ahead of anything that can be produced by the average artisan of this or any other civilized country.

Therefore when our skilled workmen, with their superior facilities for the manufacture of the stuffs, study the patterns of these masters of color and design, and imitate them intelligently, we have, perhaps, the perfection of workmanship. On page 51 for example, are two specimens of carpet from the Big-

Details of the Century Vase.

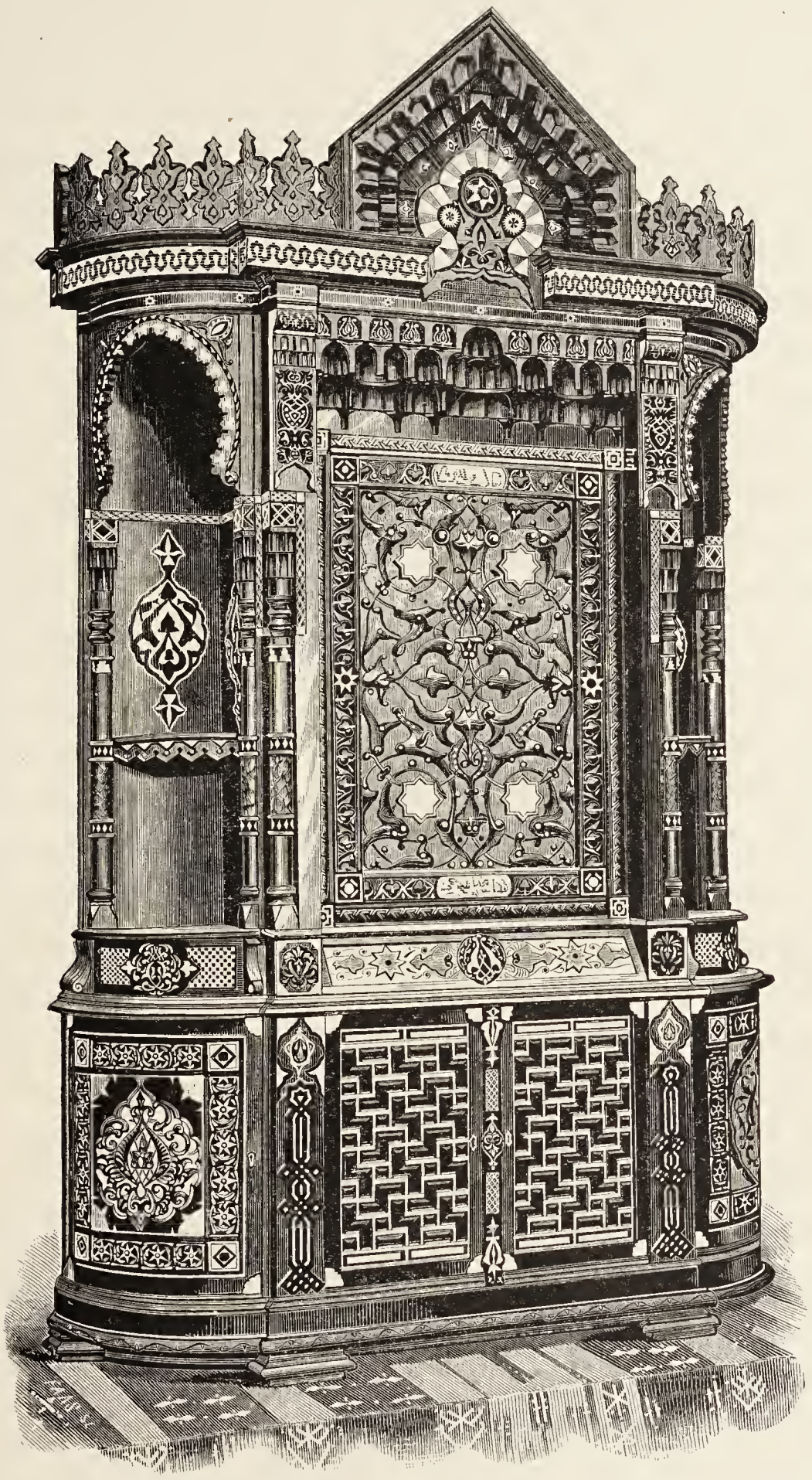
low Carpet Manufactory of Massachusetts. They are of the quality known as Turkey ply, that peculiar finish into which the foot sinks as into moss, and which has a warmth and comfortable feeling suggestive of rest and repose. The patterns of the body of these carpets are unmistakably oriental, and the border follows the same model. One difference—made, doubtless, as an economic measure in order to bring these goods within the means of every one—is, that

having chosen one figure the manufacturers reproduce it over the entire surface of the carpet. This would never be the case in a genuine Turkey rug. There, every one of the little scrolls and medallions would be different, though harmonious as a whole. But a genuine Turkey rug can only be bought by rich people, and had the BIGLOW COMPANY undertaken to reproduce these costly fabrics with exactness, their carpets would necessarily have been nearly as high-priced as the originals; whereas, now we have, in such patterns as those engraved, the essential features of the hand-made rug, offered at a very moderate price.

From the GORHAM MANUFACTURING COMPANY'S exhibit of silver and silver-plated ware, we engrave for our readers on pages 52 and 53 their *chef de bataille*, the solid silver CENTURY VASE, designed and manufactured expressly for the Centennial Exhibition. Some misapprehension has heretofore existed as to the character of the ware manufactured by this Company, an impression prevailing that when in 1865 they began manufacturing plated goods, they ceased making the solid silver-ware that for upwards of thirty years had been their specialty. This is not the case, and no better evidence is needed of the perfection to which they have brought this latter branch of their business than the example before us. It is a truly beautiful and perfect work of art, doing credit to the artists and workmen who produced it, and through them to the nation which they represent.

If the design is carefully studied it will tell its own story—the story of the rise and progress of our republic upon a soil rich in natural resources, triumphing over barbarism and civilized enemies from without, strong in its own integrity and uprightness, until on its hundredth birthday, commanding the respect and admiration of the world, it bids all nations come and see for themselves its progress, offering a hearty welcome to all alike. That the reader may the more thoroughly understand the *motif* of this fine work, we shall give a detailed description of its parts.

The piece is five feet four inches long, and four feet two inches high. With the exception of the slab of polished granite on which the plinth rests, every part is sterling silver. The designs are by George Wilkinson and Thomas J. Fairpoint. Beginning with the base from which the whole fabric of the republic was reared, we have the native red man and the pioneer of civil-



Cabinet—Ebony, Ivory and Mother-of-Pearl: G. Parvis.

ization representing the first phase of our existence. Native fruit, flowers and cereals, happily combined in groups, typifying the fruitfulness of the soil, orna-

ment the ends. One of these groups is shown on an enlarged scale in another engraving on page 53. A foliated scroll-work of graceful design connects the several groups. Above and encircling the solid granite slab are the thirty-eight stars of the republic, bound together and resting upon as sure a foundation as the rock itself. On either side of the plinth are groups—one, the Genius of War, holding her dogs in the leash, her whole attitude expressive of her fierce purpose and her surroundings—the shattered tree and the broken cannon-wheel—indicative of the desolation of her course. On the other side we have the contrast—the lion led by little children, and emblems suggestive of peace and security scattered around. Between these two extremes our republic steadily rises upwards, directed and led in those stormy days of trial by the strong hand and inflexible will of Washington. It is fitting, then, that the Angel of Fame, while holding in one hand the palm branch and laurel, should with the other hand place a wreath of immortelles upon the brow of him who was indeed the Father of his Country. On the opposite side is another medallion, the genius of Philosophy and Diplomacy, with one hand resting on the printing-press, and the other holding the portrait of Franklin—the one man of this country who was truly a philosopher and a diplomatist of the highest order. And as from the plinth the perfect vase rises, so from those colonial times sprung at a bound the young republic. On the front panel of the vase we see the Genius of the Arts, ready to inscribe on his tablet the names of those famous in Literature, Science, Music, Painting, Sculpture, and Architecture. In the reverse panel the Genius stands ready to record our advancement in Commerce, Mining and Manufactures. Crowning the vase we have the last and grandest scene in our hundred years of existence. Here is America holding aloft the olive branch of peace and the wreath of honor, summoning Europe, Asia and Africa to join with her in the friendly rivalry with which she enters on the second century of her existence.

The reader who has followed us through this description, and who will now turn to the vase, will see how splendidly this noble theme has been treated. Aside from the mere mechanical execution, which is perfect in its way, the story of the republic has been told by fitting emblems brought together into one harmonious whole, which in itself—more, perhaps, than any other feature of the design—typifies the cause of our great prosperity.

There is but one adjective which can be applied to the subject of our next engraving—the CABINET from M. Parvis, CAIRO, EGYPT—and that is, magnificent. Let the reader imagine a ground of the finest ebony, polished till it resembles jet, in which are inlaid masses of ivory and rare pieces of mother-of-pearl, carved with all the patient labor and minuteness for which the East is famous, the whole following a design of extraordinary intricacy and elaborateness. The most remarkable feature of this work is its finish. Not a joint is anywhere visible; the bits of ivory or mother-of-pearl are so nicely fitted together that they seem like solid pieces of a marvelous bigness. The longer one looks at the design, the more intricate it seems to become. The heads surrounding the grotesque mask in the central panel come out with greater distinctness, and new forms reveal themselves in the frieze and ornamentation to the panels on either side. Surely, when the artisans of Egypt can produce such work as this, it is too soon to say that the glory of the East has departed.

From the exhibit of STARR & MARCUS, of NEW YORK, jewelers and goldsmiths, we have selected, as a subject for engraving, the DIAMOND NECKLACE and PENDANT which occupy the place of honor in their principal case. Our illustration conveys, as well as it is possible for the graver's art to do it, an idea of the brilliancy of these superb articles; but whoever is privileged to see the originals will realize how impossible it is to give in black and white much more idea of the gems themselves than their size and shape. Their commercial value we believe is very great; but their value to connoisseurs who recognize the purity of the stones, the evenness of their cutting, and the exactness of size, shape and brilliancy in the pairs, hardly any estimate can be placed upon their worth.

We wonder how many of our readers know what a natural diamond really looks like. All are of course familiar with the gem as it is offered for sale in the dealer's window, but few would recognize in the insignificant lump, looking more like a morsel of clay than anything else, the origin of the sparkling brilliant which is the first and most precious of all the products of the globe.

We need not enter into the discussion of what the diamond really is. Whether it is vegetable or mineral, whether it is pure carbon or a vegetable substance slowly pressed into a crystalline form, is yet to be determined by

science. But some notion of the manner in which the natural stone is afterwards treated may be of interest. The workmen of Amsterdam, as everybody knows, have almost a monopoly of the trade of diamond-cutting. Standing before a swiftly-revolving steel disc, called a "skaif," lubricated with oil, the diamond-cutter presses the diamond, soldered into a brass holder, against the steel, and grinds down one of the faces or facets. The shape into which the

Diamond Necklace and Pendant: Starr & Marcus.

diamond is to be cut has been determined beforehand, but it is often necessary to change the original design as the work progresses, owing to flaws or imperfections in the stone. After one face is ground, the stone is taken from the solder, cemented so as to present another surface, and so the work progresses. It is easy to conceive how delicate must be the manipulation to produce the exact angles for the highest refraction of light in a stone which is cut into, say, fifty eight facets. A slight slip may damage a gem to the extent of hundreds of dollars. It is not generally known, yet it is well for those who possess

diamonds to know, that it is a dangerous experiment to emulate the example of Francis the First of France, and attempt to scratch with them upon glass. The glazier's diamond always presents a *natural* angle as the cutting edge; but as the gem has artificial angles, it may be that one of these may be used by the amateur, and owing to the peculiar crystalline structure of the diamond he will be dismayed to find that he has split off a portion of the stone, and ruined its beauty and symmetry for ever.

Some pages back we referred to our indebtedness to the Orient for many forms and objects of beauty, but we think that it will surprise most of our readers to know that that thoroughly English composition which is called Punch originates and derives its name from India or Persia. *Pounch* in Hindostanee, *punji* in Persian, and *pancho* in Sanscrit, each mean five, and five ingredients enter into the composition of this delectable compound when it is properly prepared. The fifth ingredient in India is jelly, which is their substitute for sugar, otherwise an old-fashioned English punch and an Hindostan pounch are equally insinuating and pleasant to the taste. And supposing the punch properly mixed, what could serve it up more royally than the PUNCH-BOWL and GOBLETS of the MERIDEN BRITANNIA COMPANY, which we illustrate in our engraving. The design is figurative of the use to which it is to be put. The vine-leaves and grapes, the Bacchic masks, the Goddess of Mirth, the generous size of the bowl and the number of goblets—all are suggestive of the festive board, the jolly Christmas time when young and old make merry, toasting the absent, drinking to the health of those present, passing the evening in harmless revelry and song.

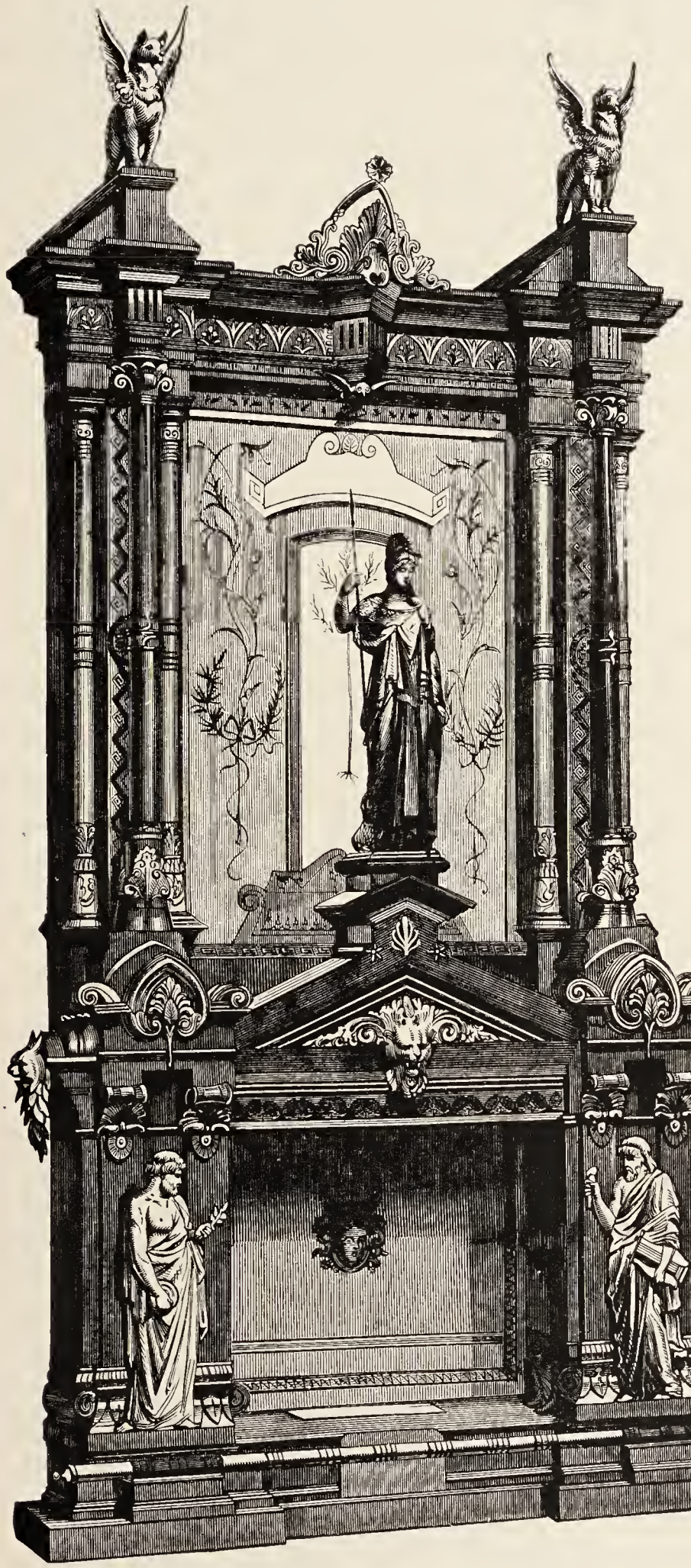
One of the most interesting and instructive features of the Exhibition is the evidence it affords of how our young republic, in its one hundred years of existence, has thrown off the simplicity of living necessary in its early days when existence was a long struggle with poverty, and with increasing wealth and prosperity is gathering to itself the most costly and elegant appliances for making life not only comfortable but luxurious, which money can buy. In every quarter of the world the invention of the artist and sculptor and artisan is taxed to supply the demand which wealth and culture make upon every branch of manufacture to give us of the best that can be produced. And our own workmen, though lacking the facilities for study and self-education to be had

on the Continent, are so constantly receiving into their ranks foreign artisans

Punch-bowl and Goblets: Meriden Britannia Company.

of the best class, that their joint work, which may fairly be called productions of American industry, compare favorably with European examples.

In nothing is this desire for sumptuous articles of use more apparent than



Chimney-piece: M. Marchand, Paris.

in the decorations and fittings for houses, especially for furniture and fixtures.

Take for an example the elaborate CHIMNEY-PIECE exhibited by M. MARCHAND, of PARIS. Only a wealth and a desire for its expression in some permanent form, such as gave encouragement to artists in the most prosperous days of Europe, could inspire such a design as this. Probably fifty years ago there was not a mansion in the country where such a magnificent combination of carving and highly ornate decoration, finding expression in statuary and gilding and polychrome enamels, could have been appropriately placed. To-day there is not a principal city in the land that has not its houses where this or equally splendid work could not be properly placed; and if we imagine a room, proportioned to suit this piece, decorated in a like style of richness, and filled with furniture to correspond with it, we have an apartment that is nothing less than palatial. M. PIAT, the designer of this mantelpiece, received the decoration of the Legion of Honor as a reward for his design. Its prevailing style is pure Greek. The material is the best black marble, relieved by gilding and polychrome enameling. On each side of the fireplace stand Poetry and Music. The head of Medusa is seen at the back, in the panel surrounded by a border in a fine Greek pattern. Above, on the pedestal, is a noble figure of Minerva, finely gilt and enameled. The panel back of the figure is relieved by a graceful design of vine-sprays after an Etruscan pattern.

It is quite fitting and natural that at the present time, when we are celebrating our Centennial, that our manufacturers, in producing simply ornamental figures, should desire to typify, by every means in their power, the eventful hundred years of the nation's history. The theme is a grand one, capable of being treated in a thousand different ways and viewed from a thousand different standpoints; and therefore the number of groups which are to be seen in the Exposition illustrative of this subject is, perhaps, larger than of any other subject. Among these manufacturers are REED & BARTON, of TAUNTON, MASS., who send a large group, symbolic of PROGRESS, which was designed by W. C. BEATTIE. Its length is five feet, and its height four and a half feet. The progress of America from savage to civilized life is represented by a contrast between its condition in the fifteenth and the nineteenth centuries. On the left hand we have a group representing the primitive state of the country: the party of savage Aztecs thinking of nothing but war—even the mother teaching her tender offspring the use of the bow; the barren rocks and scattered

bones indicating the lack of all notion of profiting by the fruitfulness of the

Progress: Reed & Barton, Taunton, Mass.

soil, while the angry serpent may be looked upon as typifying the fight with untamed nature.

Four centuries pass, and behold the contrast! The Genius of Columbia, bearing the olive-branch of peace in one hand, and the fasces of just government in the other, passes before us. Mercury, the swift-footed god of commerce and oratory, leads her steed by a flowery bridle, and thus symbolizes the guiding influences of his arts which have led us to prosperity. Beside Columbia walks Plenty, with her overflowing cornucopia; while beneath their feet spring the plants and fruits which indicate the prosperous results of agriculture. A student-group in advance, surrounded by the implements of science and studying problems which will still further advance our interests, indicates that the future holds in store for us other knowledge, and that to the progress already made more is to be added. A bas-relief upon the pedestal represents the landing of Columbus, and above rises the vase with the dove and olive-leaf, typical of the peaceful period during which the arts have flourished. Surmounting the whole is the figure of Liberty, standing upon a broken chain, bearing in one hand the palm of victory, while with the other she holds the scroll on which is inscribed the record of our progress. She is the inspiring genius to whose benign influence we owe our prosperity.

Of woman's work, the Exhibition contains many examples—some of it, such as the carving in wood, of a kind heretofore monopolized by men, and others, such as the needle-work, of a character truly feminine. In this latter class, decidedly the most interesting display in the Main Building is the contribution sent from London by the Royal School of Art Needle-work.

This School, recently founded by the Princess of Schleswig-Holstein and other noble ladies, under the patronage of the Queen, has for its object the revival of that famous embroidery and other work of the needle for which the women of England were so famous three centuries ago. It will be remembered that at that time England had the reputation of making the finest ecclesiastical vestments in the world. But with the decay of the Church came a corresponding decadence in the demand for embroidery, and consequently the art fell into disuse. Chiefly owing to the encouragement now given to it by the Royal School is this beautiful branch of woman's work being revived. The School employ the very first artists and designers of England to furnish them with designs, and in the display sent to this country are patterns by such well-known men as Morris and Crane and Pollen. We select for illustration a

superb set of door-hangings, decorated after designs furnished by the last-

Designs for Door-hangings: Royal School of Art Needle-work.

named designer. They are a valance and side-curtains or *portieres.* The material is a heavy red Utrecht velvet, on which the design of pines and

flowers is worked in embossed gold; the scroll-work and foliated patterns being done in *appliqué* with different-colored velvets. The effect of the whole is gorgeous in the extreme, making this set, perhaps, the most striking in the collection.

People who think of glass merely as a brittle, transparent substance should visit the Austrian exhibit, and especially the display of LOBMEYR, of BOHEMIA, to be made aware of its malleability, its varied uses, and a material capable of being turned into the most beautiful forms. It is said that even at Vienna the display of crystal was not so fine as that made here. In Lobmeyr's collection are superb pieces of engraved crystal, various kinds of Bohemian ware and bone-glass. In the latter the color is something truly astonishing. There are vases of royal blue with fine gilt decoration, shaped after the most exquisite Etruscan models. Here are toilet-bottles of the old pilgrim shape, and opaline ware in the style of the ancient Venetian glass. Some specimens are ornamented with flowers in the Persian manner; others are of the Renaissance period, and others again have the enameled green scales of Venice. Some of the most noticeable specimens are crystal vessels covered with a layer of transparent red glass, which has been cut back through to the crystal in wonderful and intricate patterns. We engrave a group of several of the most beautiful of these charming objects, each one of which is a marvel of the glass-worker's art

The ITALIAN COURT of the Exhibition contains many choice and beautiful things from that wonderful land whose soil has for centuries been a mine from which the nations of the world have drawn the richest treasures of antiquity that adorn their museums; and yet, great as has been the drain upon her, it is probable that to-day Italy contains, deep buried amid the ruins and the debris of her former greatness, more riches a thousand-fold than all that have been taken from her to the present time. But it is not alone with the remains of her past splendor that Italy is supplying the demand for those things of beauty which carry refinement and culture into every corner of Christendom. While one portion of her people are busily engaged searching for objects of ancient art, another portion are equally busy in reproducing with infinite skill and patience the famous works of the old masters in every branch of art, and still a third class are hard at work trying to supply the demand for antiquities

by manufacturing whatever the dealers may desire. Yet it is a noteworthy feature in the modern work of the Italian workmen that they invariably select

Group of Glass-ware: Herr Lobmeyr, Vienna.

the very best models to copy. They do not even restrict themselves to their own masters, fruitful as they were in good work, but they avail themselves of the art-work of other lands and nations. In a walk through those portions of

the Court devoted to terra-cottas and marbles and bronzes, French, German and Egyptian works are to be seen together with examples of ancient and modern Italian art.

We select for illustration a bronze *replica* of the famous MERCURY of JEAN BOULOGNE, of DRUAI. This work, the crowning effort of the great sculptor's life, is familiar to every one by its numerous reproductions in stone and metal as well as by photographs and engravings. It is a favorite ornament for lawns, for pinnacles of buildings, for the tops of columns, and in smaller form as a statuette it adorns cabinets, mantels and niches in the walls of rooms. Again, it is seen in the ornamentation of clocks, vases and objects of that sort, on *epergnés* and other table ornaments, and finally we have it reproduced by the goldsmiths on articles of personal adornment. Indeed, we remember no statue that has been so universally copied for various uses as this Mercury of JEAN BOULOGNE.

The Swedish exhibit of pottery and porcelain is certainly one of the finest in the Exhibition, both for quality of the material and for its artistic use. The RÖRSTRAND LIMITED CO. are the principal exhibitors, and from their famous factory, excepting only the Royal Works of Berlin, comes the best assortment of porcelain, majolica and parian shown in the Main Building. In porcelain the RÖRSTRAND CO. exhibit one piece that alone would have attracted the attention of visitors to the Swedish Court. It is certainly one of the *chefs-d'œuvre* of the Fair, and as an example of what can be done with porcelain it is almost unique. It is a CHIMNEY-PIECE, standing about twelve feet high, constructed entirely of hard and soft porcelain. Its general color is lavender and celadon, picked out with gold, but there are other colors blending with these and making an harmonious whole of great delicacy and richness. The fire-place is surrounded with a beautiful border of flowers and leaves in white porcelain picked out with gold. The columns on either side are divided into plain panels of lavender and gold, separated by richly-ornamented medallions. Above the columns is a frieze with scroll-work of singularly beautiful design in celadon, lavender and fine tracery in gold, while above that again is the white porcelain shelf, resembling in its purity and polish the richest marble. Above this, in the centre of a long horizontal panel ornamented with an elegant scroll pattern in relief, is a charmingly modeled figure of Cupid, in the round, which is one

of the most beautifully executed porcelains we have ever seen. Just over the Cupid, in a niche prepared for it, is an Etruscan vase, standing some three feet high. The design and coloring of this vase may be said to be the *motif* for the rest of the chimney-piece, which is, so to speak, built up around this central figure. On either side of the vase are columns, banded into diamonds below, and ornamented above with medallions containing the insignia of the arts and sciences. The whole space between the niche and columns is filled with scroll-work, highly elaborated, yet of the most chaste design. The upper part of this superb work is in harmony with the richness of its lower portion. While the ornamentation is equally elaborate, it is lighter in color and treatment, and gives an effect of finish which is altogether satisfactory. Whether in this piece we consider the adaptability of the material to the use proposed, or the character of the ornamentation allowable in an object of this kind, or simply the effect of the whole as we see it, there can be but one opinion of its merit, and we cordially recommend it to all, not only for its mechanical execution, which few will appreciate, but for its purity and harmony of design, which all can study and admire.

Mercury, bronze: Italian Court.

The famous Rörstrand Works were established in 1726—just a century and a half ago—at Rörstrand. The greater part of the porcelain manufactured always has sold in Sweden, but of late years an export trade has grown up with France and England, as well as with the adjacent continental nations, and promises to be of importance in the future. As but the materials for porcelain abound in Sweden, the manufacture, as compared with that of other countries, becomes simply a matter of competition in skillful manipulation. and artistic treatment. In the former of these the Swedish workmen already excel, and they certainly are not far behind either France or Germany in color or design. The display of majolica at this Exhibition made by Sweden is in many ways the best of all. Beside porcelain and majolica, the Rörstrand Works make parian and bisquit ware and various grades of commercial China. At the present time their business gives employment to between five and six hundred persons; the production of the works having a value of about $900,000 annually.

From Sweden—which, everything considered, makes the best display of ceramics in the Exhibition—comes the spirited group which forms the subject of our engraving shown on page 72. It is a *replica* in terra-cotta by S. H. Godenius, of Stockholm, of the spirited group, The Grapplers, by J. P. Molin. The engraving gives a capital idea of this fine work. The moment chosen by the sculptor is a critical one in the contest, and moreover—this is a point which we have referred to before, but we wish to emphasize it—a moment strictly correct in an artistic sense. The combatants at this instant are *motionless*, and this, we contend, is the only proper theme for sculpture. Action past and future may be indicated, but present, actual motion belongs only to the domain of the painter. As we have said, at this moment the grapplers are at rest. An instant more, and the one who has seized the upraised wrist of the other, preventing the intended blow, will have turned the odds against his adversary, and have clinched for a fall. We are glad to see the reproduction of works of this class in terra-cotta. The material is a noble one, capable of an infinite variety of uses in the arts and manufactures and, with care, can be made a valuable accessory to sculpture. Next to Italy, Sweden's terra-cotta is the most satisfactory in the Exhibition.

There is a growing tendency in this country to make certain homely articles of furniture appear, when not in actual service, to be something other than they

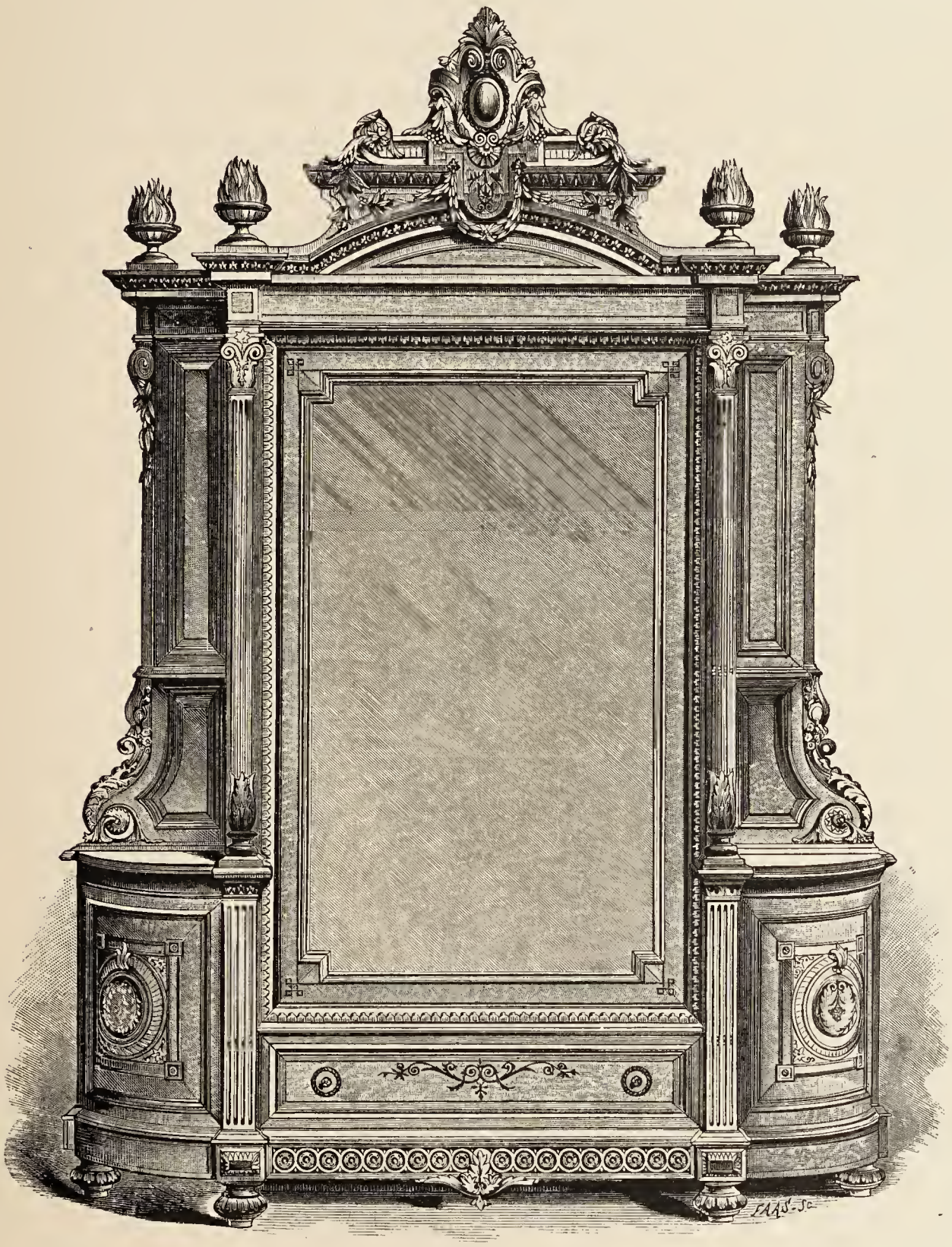
Chimney-piece: Rörstrand Co. Limited, Sweden.

really are. Theoretically, this tendency is a bad one, because it partakes more or less of sham, which, if we may be permitted to use the figure of speech, is a partially-explored country of vast extent, though without determinate limits, whose inhabitants and all their belongings are regarded with suspicion and contempt by the honest people who have seen how unsatisfactory and unreal everything belonging to them proves to be. But in the modern manner of living, there are certain conditions of existence which justify a certain amount of deception, and indeed render it altogether praiseworthy. Here, for example, is a young couple of moderate means, who cannot afford to keep house or to rent a suit of rooms in the neighborhood where it is desirable for them to live. If, however, they could manage to live in a single apartment, they could readily afford to remain near their friends. The cabinet-maker of to-day steps in and tells them that nothing is easier. He will supply them with furniture that shall make of the one apartment a bed-room which can be turned into a parlor at a moment's notice. He provides them with a bedstead which by some ingenious mechanism transforms itself into a sofa, a wash-stand that becomes a writing-desk, a wardrobe that has the appearance of a secretary, and the thing is done. Now, all this is a very proper and justifiable proceeding. Our young couple do not want to receive friends in a room which suggests its use as a bed-room, and they cannot sleep on parlor furniture; but in this way their difficulty has been removed.

The Grapplers, terra-cotta: S. H. Godenius, Stockholm.

If we follow the fortunes of this imaginary pair, and look in upon them again when their economy at the start has enabled them to have a house of their own, luxuriously furnished with all the appliances of wealth and culture,

we find a corresponding desire to make things answer for several useful purposes, and by this economy of room gain more space for what is purely ornamental. In the sleeping-room, for instance, where there is now no neces-



Wardrobe: G. Vollmer.

sity for concealing the bed, we find such a WARDROBE as this of VOLLMERS. In itself it is a superb piece of furniture; but in place of a paneled door we have a broad mirror, which thus gives just that much wall-space for pictures or what

ornaments we please. Then, on either side of the mirror-door are spaces nicely contrived to hold the numberless little articles—statuettes, vases and pretty toilet articles—that women love to have about them. Beneath the broad slab at the base of the glass is a roomy drawer, and on each side of it cupboards, where the "mysteries" of the toilet or the jewel-box may be kept under lock and key. So that in short we have an article of furniture combining several uses, all grouped together into a form of artistic beauty. The elaboration and finish of the work is excellent. The light, delicate color of the satin-wood ground is relieved by the rich mahogany decorations. The elegantly-curved lines of the design, the finely-wrought scroll-work, the harmonious combination of effect at the top, all help to make this wardrobe a real work of art, an addition to its primary use as a piece of necessary furniture.

Our next illustration is an admirably-designed Stained Glass Window, manufactured by Cox & Sons, of London, the well-known ecclesiastical decorators. The window is divided into three parts, each section being complete in itself, yet forming together an harmonious whole. The subject is that beautiful incident in the life of Christ when he gathered the multitude about him on the mountain and spake to them those words of mercy and tenderness and love—so different from the lessons of the elders—which have come down to us through the ages, bearing their sweet message of consolation and hope to many a weary heart; their divine wisdom becoming but the more apparent as we recognize what those few simple precepts, uttered eighteen hundred years ago, have done toward revolutionizing the nations of the earth, and bringing civilization out of barbarism. It is very right and proper that Christian people should be constantly reminded of this sublime occasion; and no means are so effective and real than to aid the imagination by means of pictorial representations. Long before the art of painting and staining glass with figures was invented, frescoing and panel-painting were in common use. Yet it was a glorious thought which first conceived the idea of making the church-windows, through which the light of day diffused itself throughout the sanctuary, a medium by which the splendor and glory of that other and first Light should be typified in the mind of the worshippers with colors such as no canvas can produce. Of all the adornments which man, in his desire to make the house of God beautiful, has brought into the church, the stained glass window is, to

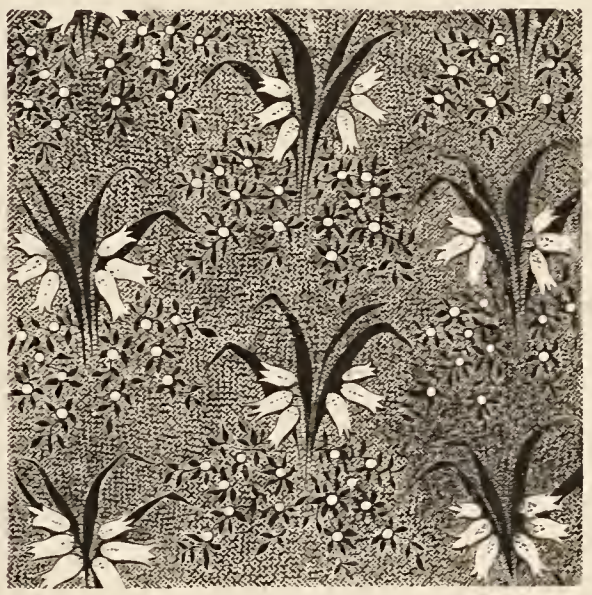
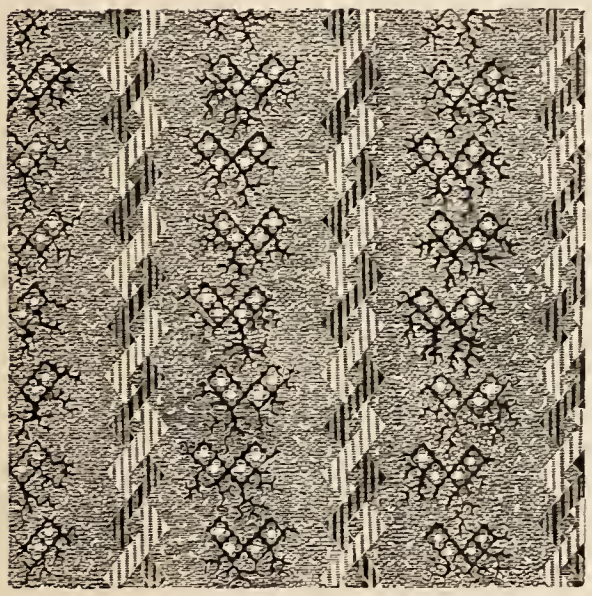
Stained Glass Window: Cox & Sons, London.

our thinking, the most appropriate and beautiful. It may be simply contrasted masses of harmonious color, or it may be as elaborate a painting as the

subject of illustration; and in this respect it is one of the noblest forms in which art may express religion.

We engrave on page 77 some of the PRINT PATTERNS used by the AMERICAN PRINT WORKS, FALL RIVER, MASS., in their manufacture; and as these figures may fairly be taken to represent the fashion of the day, it is curious and interesting to note how much we have improved in this respect within the past few years. Perhaps it would be more correct, in speaking of fashion in dress, to give all the credit of this change to the sex whose reign and *fiat* in this respect is supreme; and, indeed, we are quite willing to give woman everything she may claim in this respect. While it is highly probable that men designed the patterns before us, it is equally certain that they never would have become popular if they had not pleased the women's fancy. It is not so very long ago, say when our grandmothers were girls, that the young creatures thought themselves very fine indeed if they were attired in robes on which impossible peacocks and birds of paradise—whose plumage certainly resembled nothing terrestrial—were displayed. We find examples of these dresses in the colored prints of the time, and occasionally one is discovered in a long-forgotten trunk, and preserved as a precious accessory for tableaux. At a later period, indeed, within the recollection of many of us, dresses were covered with great sprawlings in glaring, ill-contrasted colors, such as none but a savage of to-day would delight in. And now we have such patterns as these—neat, carefully designed, with proper regard for the color-effect, and altogether pleasing and attractive to the eye.

From the truly regal display of porcelain made by the ROYAL PORCELAIN WORKS at BERLIN, we select for illustration two figures, each a masterpiece in its way. The one is a large oval vessel intended to be used as a WINE-COOLER, or if desired it can be used, as it is at the present time, for a JARDINIÉRE. In either use it makes a very striking and beautiful object; but the design and style of ornamentation make the former purpose preferable. The material, though porcelain, is treated so as to resemble Italian majolica, and none but an expert could pronounce upon its genuineness. The design is masterly and the execution faultless. Nothing could be more spirited than the lines of the Triton's head, the modeling of the mermaids who clasp hands above his waving locks, and the graceful curves of their attitude. The handles

Print Patterns: American Print Works, Fall River, Mass.

on either side are ornamented with masks and scroll-works suggesting shells, and a simple border above and below serves to give finish to the rim and base.

There is an entire absence of anything like "finnikiness" about the ornamentation of the piece that makes it appear peculiarly massive and noble. Every part of the design is drawn with a strong, bold hand, suggestive of the best period of this style of work. The vase is of an entirely different style and treatment. Its material is the hard porcelain made in Europe, and on its glossy white surface are painted flowers copied with careful exactness after nature. Long practice in the art of flower-painting has enabled the Berlin artists to bring their work to the highest state of perfection; and the roses here represented blend their hues as perfectly as if painted with nature's pencil.

The superb MIRROR which we engrave on page 81 is from the display of the MESSRS. ELKINGTON & CO., of LONDON, manufacturing silversmiths and art-workers in the precious and other metals. Silver, gold and steel enter into the composition of this piece, which in beauty of design, fulness of elaboration, and mastery of technical execution, is one of the finest examples of modern metal-work in the Exhibition.

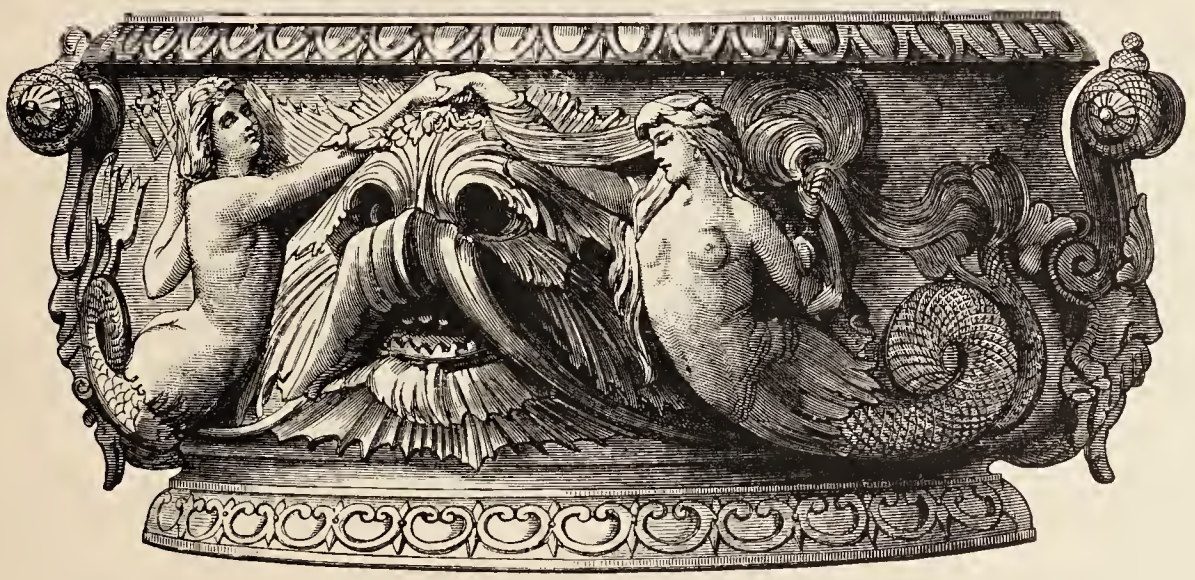
In style this mirror has all the richness of finish and elaboration without weakening by overloading, with ornament of the best period of the Italian Renaissance. In his design the artist has been singularly happy in his choice of subjects for illustration. Nothing could be more beautiful and suggestive than the groups with which the piece is adorned.

The mirror proper is a sheet of heavy plate-glass, of an oval shape, with beveled edges. This is encircled by a smooth, slightly rounded frame of steel damaskeened in gold in the most delicate of arabesque scroll patterns. At intervals between these scrolls are gracefully-drawn birds, some resting balanced on a spray, and others winging their flight through the air. The plumage of these beautiful feathered creatures is indicated by chasing so minute that the aid of a glass is necessary to appreciate its fineness.

Encircling the steel frame is another of silver, in which the mirror swings. This frame is ornamented with sprays of leaves and flowers beaten out and chased in the manner known as *repousse* work. The sockets for the support of the mirror are also finished by the same method. On either side of this frame and welded to it are uprights or pillars of silver backed by steel. On these pillars, resting on a ledge a third of the height up, are Greek vases containing sprays of flowers, also done in *repoussé* work. Above the flowers are

garlands, gracefully festooned below the capitals of the pillars, which are finished with masks and scrolls. All the work here, both in design and execution, is of the highest merit, and represents the perfection of this branch of the silversmith's art. Resting at the base of the pillars upon the broad stand are two groups in silver of the same general design, but differing slightly in pose. Both represent a draped female figure toying with a little child. In the one group the little fellow is holding up a glass to catch the reflection of his companion's face; and in the other he is playing with a fan while in the act of listening. These groups are very well worthy of study. The pose of each one of the figures is admirably rendered; the expression on each face is wrought with skill, and the drapery is perfect. Surmounting the pillars are

Vase: Royal Porcelain Works. Berlin.



Wine-cooler: Royal Porcelain Works, Berlin.

pairs of doves, in attitude and expression as lifelike as possible; every feature of their wings is executed with wonderful minuteness and softness.

Crowning the arch above the mirror is as charming a group as ever assisted at a lady's toilet. Two little cupids are nestled there, one standing up and holding a lighted torch in his hand; while the other, crouched at his feet, is looking down as if in admiration at the fair consultor of the glass. The idea conveyed by the attitude and expression of these little loves is exceedingly charming. No one, no matter how homely, can look into the mirror without being conscious that here at least are two who are struck with admiration of her charms.

All of these groups just described are, like those first mentioned, done in silver and finished by the graver's tool. In the same kind of work are the pair of winged cupids who seem to have been playing hide-and-seek, and to have come suddenly upon each other while flying round the medallion which ornaments the base of the silver frame. Their little faces betray mischief, glee and a pleased surprise at their sudden rencounter. One can easily imagine that they have but just flown out from behind the back of the glass, and that a whole troup of their gay companions is still romping there.

This completes the ornamentation in detail. Now we see how artistically all combine to make an harmonious whole. Nor can we fail to be attracted by the purity of the way in which the theme has been treated. As to the technical execution, we have already spoken of it with the highest praise. There is but one point further that we would call attention to, and that is the damaskeened work. There are three ways of doing this: either by making a fine incision with the graver's tool, and fastening in a thread of gold wire, which is the oldest and best method; by hacking the surface with a knife and fastening the gold on superficially; or by etching the pattern in with acid and then placing the gold in the cavity. This last method approaches the former in effect and finish, and cannot readily be detected from it, and it is either by this method or by the first-mentioned process that the wonderful damaskeened work of the Messrs. Elkington is done.

Our next engraving represents the Chili Cup, exhibited by Reed & Barton, of Taunton, Mass. This fine example of the art of the silversmith was sent by the manufacturers to the Chilian Exposition, where it gained a prize, and has since been known by the name given above. Looking at it in detail, we observe that the cup rests upon a square, polished stand, without any decora-

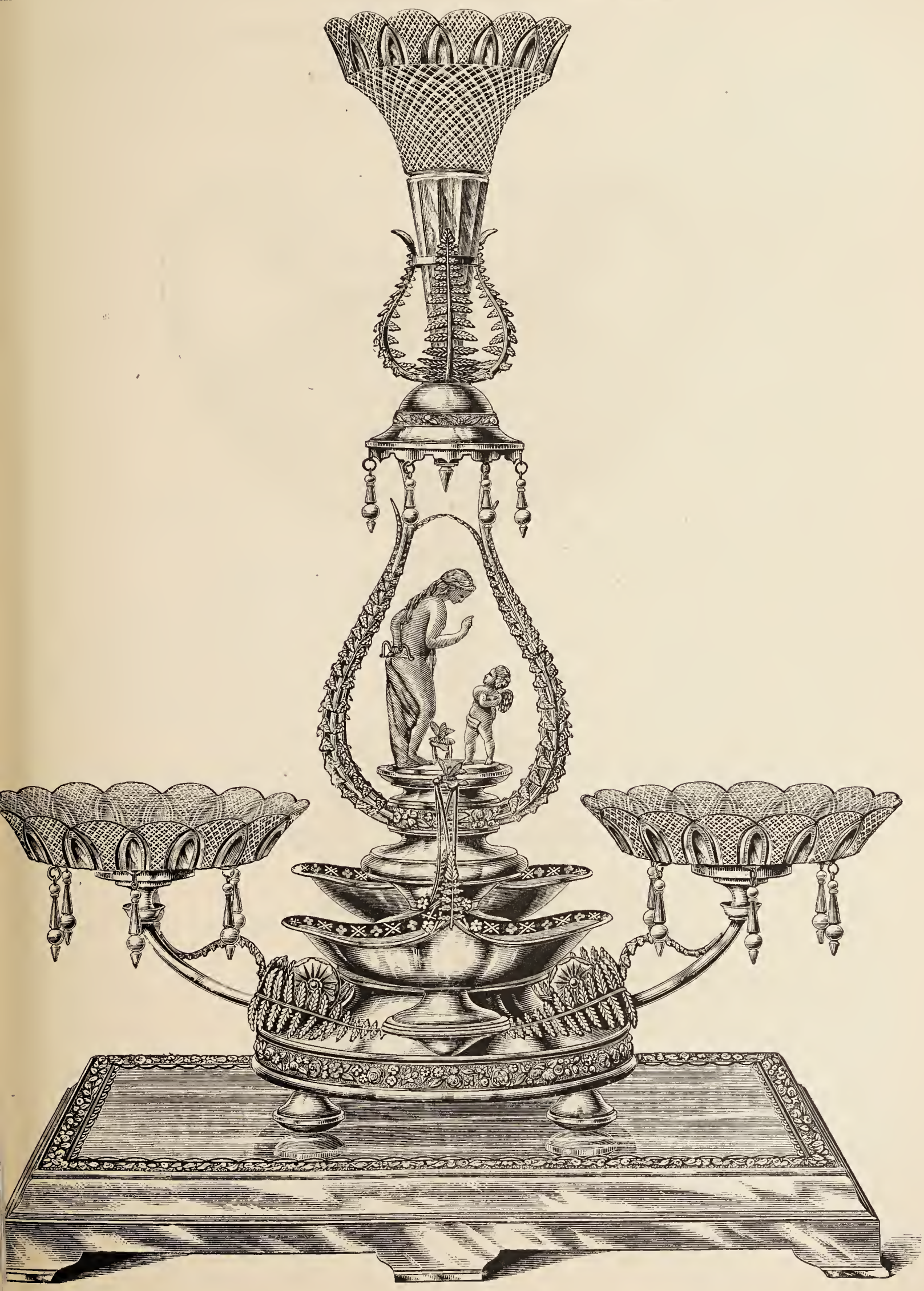
tion save a narrow raised border of leaves and flowers. Encircling the base of the cup is a beautiful floriated design in low relief, and on this base, resting against the central shaft, are two large shell-shaped vessels of polished silver,

Mirror: Elkington & Co., London.

without any decoration except some simple chasing on the inner side of the rim. Resting on the base are tree-ferns—wonderfully perfect copies of these graceful plants—so disposed as to give a pretty finish to this portion of the

design. On the sides of the shaft, raised somewhat above the shell-shaped vessels by curved branches, are finely-cut glass dishes with silver pendants. At this level the shaft separates into two slender branches, covered with delicate ferns twining about them; and the branches themselves, first bending outward and then inward, form a harp-shaped figure, within which is a charming group of Venus and Cupid. Cupid has evidently been about some mischief, for his mother has taken his bow away from him and is holding it behind her back with one hand, while the other is raised to give emphasis to her admonition. The little fellow stands in defiant attitude, as if conscious of no wrong done, but it will not be long before he will be begging for his bow again, for without that he can have no further sport. Balanced on the upper part of the branches is a vase of crystal and silver, its base surrounded by pendants, and the same design of branches and fern-leaves carried out on a still smaller scale. The effect of the whole figure is peculiarly light and airy, and if we imagine the vase and dishes filled with flowers and fruit, there could hardly be a more chaste or elegant centre-piece for a table.

We wish that it was possible to give to those of our readers who may not be fortunate enough to see it a good idea of the wonderful play of light and the surprisingly rich effect of color in this glass VASE of LOBMEYR'S. But neither engraving nor words can do more than suggest its brilliant appearance. In the sunlight no jewel reflects rarer prisms of color than flash from its angles. By looking at the engraving it will be seen that the shape of this vase is of an admired Greek pattern. Its handles, twisted like those of the Urbino vases, represent serpents, their heads pressed flat down upon the rim in an attitude of watchfulness, and their bodies attached by finials to the bowl. The vase itself is composed of crystal, enameled with red glass. Around the body extends a broad zone containing scroll-work and figures cut through the enamel to the crystal. The engraving here is of the most minute description, every leaf and tendril being worked up with infinite pains. In the centre of the zone is a winged female figure, supported on either hand by lions conventionally treated. There is no ornamentation upon the stem and base of the vase, but it rests upon a pedestal, with lions' heads as handles, and the shaft engraved with lovely festoons held up by ribbons. The work here is as minute and intricate as that above, though the design is not so elaborate.



Chili Cup: Reed & Barton, Taunton, Mass

For a drawing-room ornament, or for a collector's cabinet, or for purposes of illustration in a museum, we have seen no single piece of crystal that is a better example than this of the perfection of modern glass-working.

Vase: Herr Lobmeyr, Vienna.

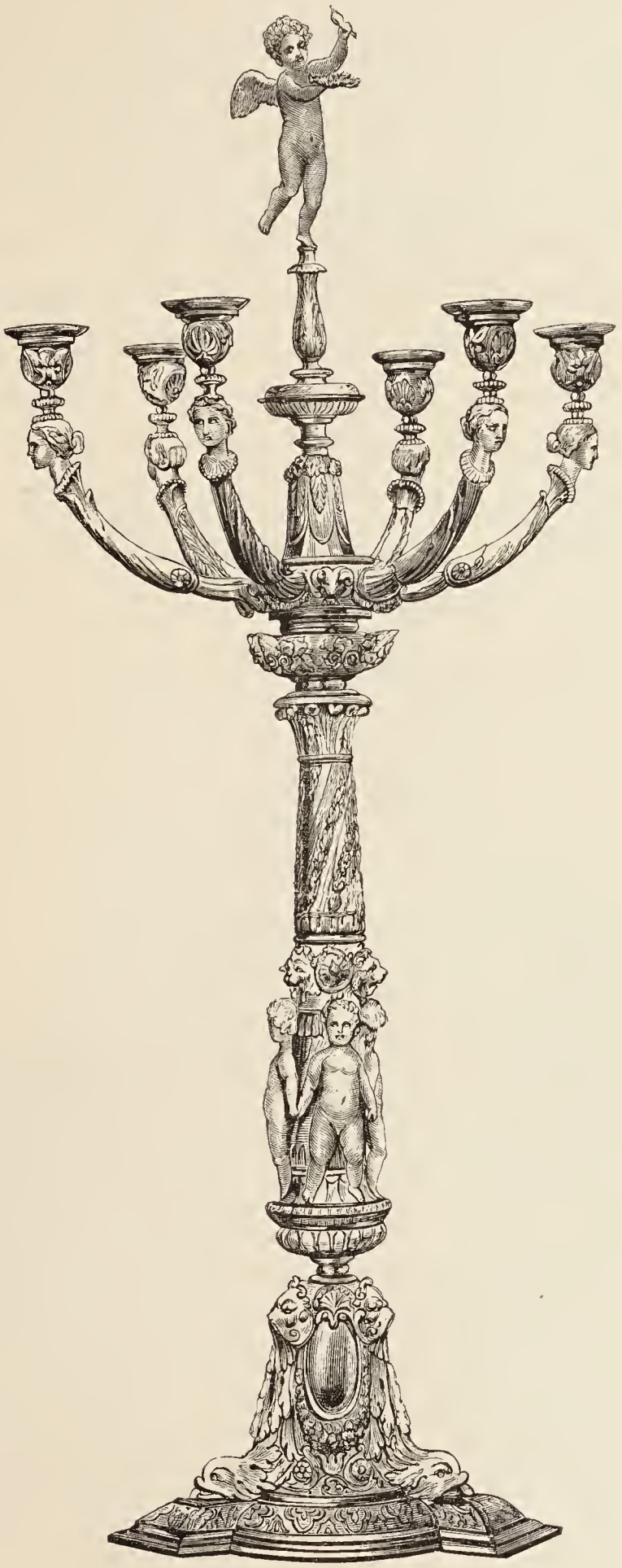
We wonder that, in these days of collection-making, more people have not taken to getting together specimens of artistic glass. Certainly a well-selected assortment of choice crystal makes one of the most beautiful and

Service, Repoussé Silver: Messrs. Bailey & Company, Philadelphia.

interesting collections that it is possible to make. At present the china-mania seems to have gained almost complete possession of the public.

The elegant SILVER SERVICE which we engrave on page 85 is selected from the large and beautiful exhibit made by the MESSRS. BAILEY & COMPANY, of this city. It consists of eight pieces—the urn, coffee-, tea- and chocolate-pots, sugar-bowl, cream-pitcher, waste-basin and waiter—all of solid sterling silver, elaborately ornamented with *repoussé* work. We are glad to see that it is again becoming fashionable to place the urn upon the table, for certainly it is one of the most beautiful vessels in itself, and its use is so suggestive of comfort and good company, that it is a pity it was ever banished. At breakfast and at tea its place on the table as an ornamental feature is as prominent as that of the *epergne* at dinner. All the other vessels and dishes are subservient to it. Notice how in this group it dominates all the other pieces and gives a finish and completeness to the whole, which without it as a central figure could not be expressed. It will be observed also that its form and manner of decoration give the *motif* for the design in the rest of the set. Resting upon a beautifully-shaped stand on four feet, and so arranged as to contain the spirit-lamp, the urn rises graceful and symmetrical as a Greek vase. On either side of the ovoid-shaped body are the curved handles, and surmounting it is the crown-shaped lid, terminating in an ornamental knob. Every portion of the urn and stand is decorated with *repoussé* work of the most elaborate description. Flowers, leaves and grasses twine and intermingle over its surface with all the luxuriance of nature. Yet while thus simulating a natural growth, each spray and tendril has been placed in position by the cunning hand of the artist, whose training enables him to decide where it will be most effective. If the other pieces are examined carefully it will be seen that the same general grouping of natural objects has been followed in their decoration; so, too, it will be observed that the design of these other vessels follows the same curves as in the urn wherever it is possible. Of course in the pitcher an allowance has been made for the bend of the lip, and in the pots a spout must be made which shall harmonize with the handle. To accomplish this last-named effect is, by the way, one of the most difficult things in designing a tea or breakfast service. It is rarely that one finds a really satisfactory tea-pot or coffee-pot. When the curves of a spout balance, so to speak, those of the handle, we

may have something altogether lovely in appearance; but when we put the beautiful object to the test of actual use, we find that the liquid, instead of flowing from the proper orifice in an abundant stream, first trickles from the nozzle, and then, as we continue to tip the vessel, bursts from under the lid with a sudden outpouring that is as astonishing as it is overwhelming. Perhaps the most satisfactory shape for pouring purposes is the old-fashioned tin or earthenware kettle with its straight spout and high, round handle. But this honest, homely little body rarely rose above a place beside the logs in the fireplace. There it sung and was comfortable; and it would make but a sorry figure if introduced to the company of such fine, twisted objects as now glitter and shine upon the tables of nearly every one who has the means to purchase them.



Silver Candelabra: M. Christesen, Denmark.

On this page we give an illustration of the silversmith's art as practised in DENMARK. It is a CANDELABRA exhibited by M. V. CHRISTESEN, of COPENHAGEN. The material is solid silver, with gold gilt ornamentation. The piece stands about thirty inches high, and is covered, with the exception of the figures,

with fine chasing and relief-work from base to top. The candelabra rests upon a triangular-shaped standard ornamented with dolphins' heads, masks and medallions in gold gilt. Around the edge is a very pretty border of chasing. Resting upon a cup-shaped base are four gilt figures of children, standing back to back and clasping hands around the shaft. These figures are cut in very high relief and thoroughly well designed and executed. Just over their heads is a zone of masks, and above that the shaft tapers up to a capital of Corinthian shape. Above that, again, the six curved branches of the candelabra unite, and from their junction rises a pedestal on which a charming little cupid, with a wreath and bow, poses as lightly and airily as if he had just alighted there. The branches terminate in skillfully-executed women's-heads, on which rest the candle sockets. These heads are gilded, and a fine gilt line winds around the stems beneath them in a manner similar to the work on the main portion of the shaft. This beautiful article is exhibited by M. CHRISTISEN with a group of table furniture, and its position and size indicate that it also is intended for table use. In Europe, even in those portions where gas has been largely introduced, most people prefer the soft and subdued light of candles to the dazzling glare of the other means of illumination; and as it is customary to place the candles on the table, many elaborate and beautiful devices are made to hold them. Certainly no one who has seen a handsome feast set off in this way will deny that the effect is much more pleasing than can be produced by any arrangement of gas.

The FOUNTAIN which we engrave on page 89 is a very remarkable illustration of the admirable adaptation of the ware made by the MESSRS. DOULTON, of LAMBETH, ENGLAND, to purposes of decoration, or rather ornamentation, on a comparatively large scale. This fountain, which stands about eight feet high, is composed entirely of the peculiar composition known as Doulton-ware, and is modeled after designs furnished by the promising young artist and sculptor, MR. GEORGE TINWORTH, of LONDON. The prevailing colors in this spirited and artistic production are rich browns, greens and yellows, which blend together in a subdued and harmonious way that is very effective. The basin of the fountain, which is about seven feet in diameter, is surrounded by a border of large leaf-shaped figures, with others backing up against their interstices. From the centre of the basin rises an imitation rock-work construction with caves

Fountain: Doulton & Co., Lambeth, England.

and hollows, from which grasses and aquatic plants depend. At intervals around this rock-work are gracefully-modeled swans, and by a clever contrivance the water is raised to a level with

their bellies, so that the birds seem actually to be swimming and disporting themselves in their favorite element.

Above this rock-work and resting on it as a base is a platform with three curvilinear sides and rounded ends, from the centre of which rises a sheaf of rushes, which forms the shaft of the fountain. About this sheaf is grouped a trio of cupids riding astride of dolphins which the little fellows have captured

Greek Vases: A. B. Daniell & Son, London.

and harnessed. The modeling of these figures is particularly clever. Each one is different, yet it would be hard to select any one as the best. Swans coquetting and pluming their feathers complete this group. Above is a second but smaller basin shaped like a shell with scolloped edges. From its centre and forming a continuation of the shaft is a group of storks, standing back to back, as erect and stately as if conscious of their reputation for wisdom. Above them is a third and smaller basin, resembling the second in shape, and

above it the shaft terminates in the tall seed-stalks of the rushes, crowned by a bunch of pods.

In the treatment of his design Mr. Tinworth has made a happy blending of conventionalism and realism, and has confined himself to a strict simplicity of detail with a success attainable only by artists of exceptionable ability. The mechanical execution of the piece is also worthy of mention. The colors are

Group of Artistic Pottery: Gustafsberg Co., Sweden.

remarkably even and pure, and the salt-glaze of the Doulton process gives them a brilliancy and lustre unattainable by any other means.

From the collection of rare porcelain and faience made by A. B. Daniell & Son, of London—certainly one of the choicest ceramic exhibits at the Centennial—we illustrate two of their beautiful Greek Vases, modeled after well-known specimens in the British Museum, and decorated by the *pate-sur-pate* process by the celebrated artist M. Solon, formerly of Sevres, but now in the employ of the Messrs. Minton, of England. These vases are of a

chocolate-brown color, so deep in shade as to seem to be black in certain lights. The base and the lower portion of the body are decorated with gold lines in the sunken portions of the modeling. On the zone which surrounds the body throughout its greatest length are figures of the Graces and Cupids drawn with unsurpassed delicacy and skill. We have already described the *pate-sur-pate* process at length, but it may be as well here merely to remind our readers that this painting is done with a sort of liquid china, which in its wet state is opaque; but after firing, this paste becomes either semi-transparent or opaque, according to the thickness with which it is laid on. The practice and skill necessary to produce artistic results by this method, as well as the care requisite in the firing, are sufficient reasons for the extreme costliness of the articles thus produced. This pair of vases have been bought by Henry Gibson, Esq., of Philadelphia.

The upper part of these vases—the neck, handles and lip—are ornamented with fine enameling in red and yellow, after approved Greek patterns. These enamels are very rich and brilliant, and though sparingly applied, are an exceedingly effective feature of the general design.

The group of articles which we engrave on page 91, in variety of form and material give an excellent idea of the character of the exhibit made by the GUSTAFSBERG COMPANY, of SWEDEN. Here is terra-cotta, parian, imitation majolica, and different qualities of porcelain. The large vases on either side of the engraving are, as will be seen on inspection, different views of the same piece, which occupies the place of honor in the MESSRS. GUSTAFSBERG exhibit, and is, undoubtedly, the *chef d'œuvre* of the collection. This vase stands about four feet high, and from the foot upwards is one solid piece of porcelain. The general color of the piece is a clear sky-blue of remarkable evenness. The border around the foot, the channels around the lower part of the body, the scroll-work above and the relief-work generally are gilded with gold. The zone around the middle of the vase contains a finely-painted subject representing the procession of the Arts. The coloring of the figures is very rich and varied, and they are seen with clearness against the back-ground of pure white enamel.

A vase of Persian shape, decorated with figure-subjects of Peace and War, crowns the group. Other vases of different styles and shapes can be seen

dispersed throughout the collection. Fine porcelain dinner-services, plainly but richly decorated with bands of color, will be observed also. An excellent beer-mug of cream-colored stone, with blue enamel in relief ornamentation after the German style, is here, and also a ewer of an Urbino pattern in majolica. The fine group called "The Grapplers," which we illustrated in a recent number, and numerous busts and statuettes in parian, will be observed, as also, standing just back of the majolica fruit-dish, a pair of covered vases in parian of the open-work or basket-pattern which is so much admired.

The beautiful

Persian Vase and Pedestal: Herr Lobmeyr, Vienna.

Persian VASE and PEDESTAL exhibited by M. LOBMEYR, of VIENNA, and engraved by us on this page is a very beautiful specimen of the highly artistic effects obtainable in crystal. In color it is a rich ruby red of astonishing brilliancy, which is heightened by the superb decoration, which consists entirely of gold gilding.

We would call special attention to this decoration, for it is an admirable illustration of the advantage of art education. It is in the spirit and style of that wonderful nation — the Persian—whose decorative designs are seen and admired in every part of Christendom, and whose influence in

this branch of art has been perhaps greater than any other people. Any one familiar with Persian work will see how thoroughly this decorator has mastered their principles of design; and this mastery could only be attained by facilities for study such as only Europe affords.

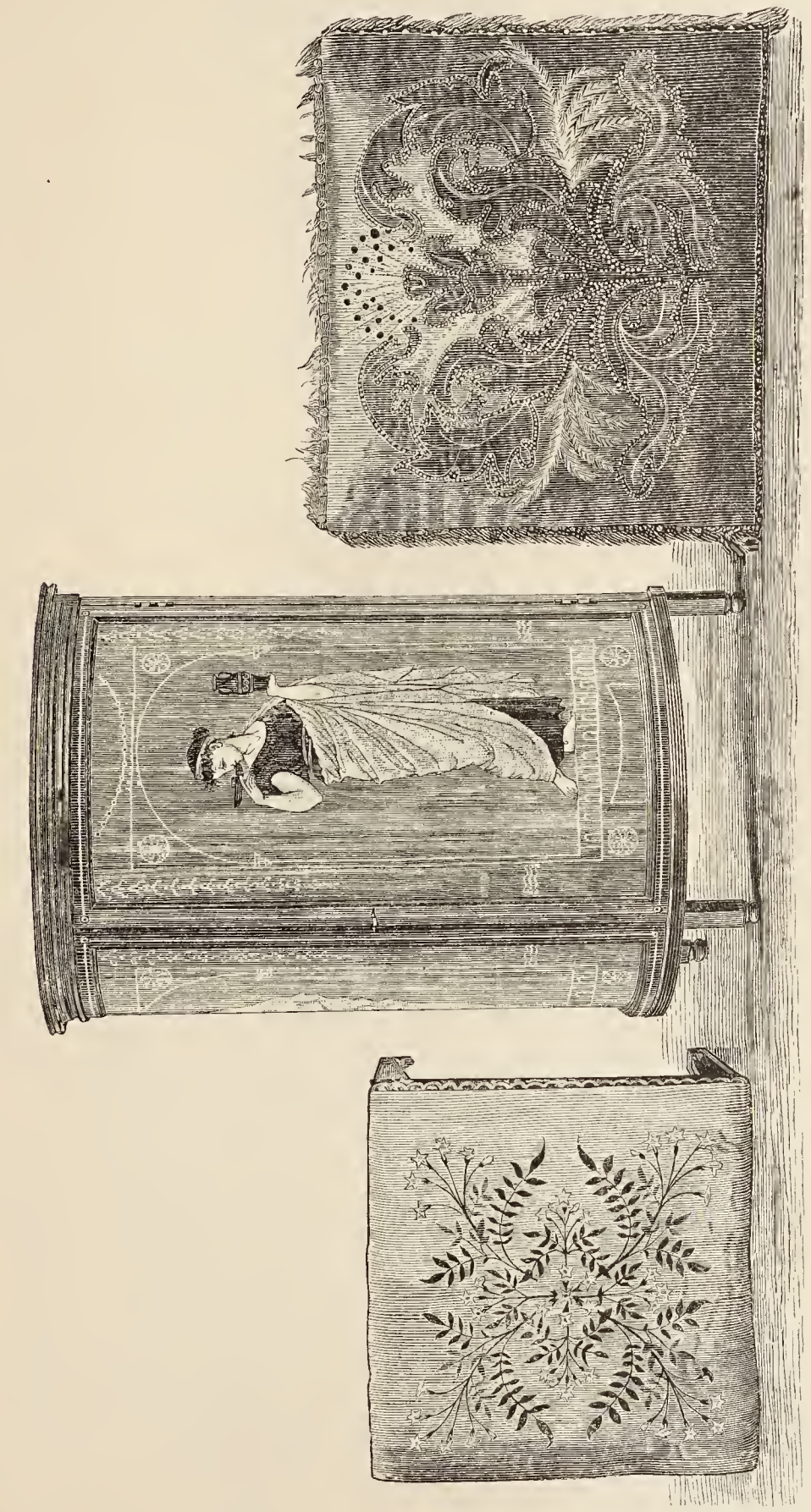
The most ignorant observer will, although unable to give the reason of it, notice the beauty and harmony of the whole effect; yet, if he reflects for a moment, and if, while remarking the astonishing amount of work there is on this vase, he has judgment enough to perceive that it is subservient to the design itself and entirely unobtrusive, one of its main claims to excellence will have been discovered.

The term arabesque, which is used to designate the intricate scroll- and leaf-patterns such as are seen about the zone of this vase, implies that this style was invented by the Arabs. But one of the very best authorities of modern times—Major R. Murdock Smith, R. E.—asserts that the Arabs never were an artistic people, although their rulers were distinguished patrons of the arts. Nevertheless, these rude people knew enough to adopt and carry with them the arts of the people they conquered. Thus when, after conquering Persia, they overran Europe, establishing themselves in Spain, they gave to the latter country as their own what they had acquired in Persia. The same high authority mentioned above is of the opinion that it is far from improbable that even the Alhambra itself was chiefly the work of Persians, who stood to the Arabs in much the same relation that the Greeks did to the Romans.

The many uses to which art needlework can be put is well illustrated by the exhibition made by the Royal School of Art Needlework, of London. We give three examples on page 95. The first of these is an Ottoman Cover, embroidered in a very delicate flower- and leaf-pattern after a manner which is a favorite one among the pupils of the School. This consists of copying the leaves and flowers in color and veining with careful exactness, and at the same time conventionalizing their general arrangement to allow of the repetition of the design as part of one pattern.

The second piece is a Cabinet with a figure-subject, also embroidered—the design evidently the work of an artist, probably Crane himself. Work of this character requires long practice and skill with the needle, as well as instruction by competent individuals. But the general result is so satisfactory,

and the work itself is so thoroughly feminine, that we sincerely trust something of the same kind will be attempted in this country. We have a fancy

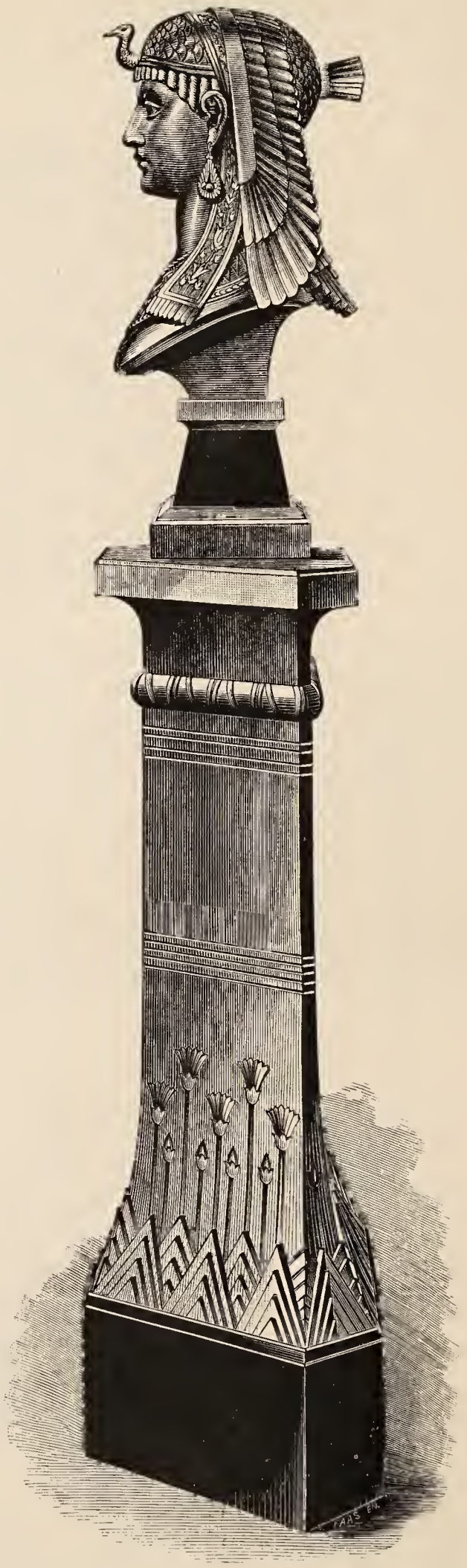


Designs in Needlework: Royal School of Art Needlework, London.

that our lack of art schools and other institutions where women can learn to employ themselves usefully and profitably at work which is in itself interesting

and beautiful, is one of the causes which drives them to so unsex themselves as to seek to engage in men's affairs. Give our American women the same art facilities as their European sisters, and they will flock to the studios and let the ballot-box alone.

On this page we engrave the bronze bust of a woman who lived, if she lived at all, in a time when men would have scorned the thought that any of her sex could minister to their intellectual pleasure. Her whole duty in life was to make herself beautiful—to present herself before her lord decked out in all the bravery of barbaric ornament. How elaborate this was can be estimated from the



Bronze Column and Bust: Mitchell, Vance & Co., N.Y.

elaborateness of the head-dress which we see here. Yet no one can look upon the perfect contour of this face, the firm lips, the noble brow, and calm, steadfast gaze of the eye, without believing that here at least was a woman intellectually man's equal.

This beautiful bronze, which is equal in artistic merit to anything shown in the French or German Courts, is from the American exhibit of Messrs. Mitchell, Vance & Co., of New York. The reader will not fail to observe the bronze pedestal on which the bust rests, which is in itself a remarkably fine and perfect piece of designing. The pedestal is triangular in shape, its columnar

ornamentation—the upper and lower members—having all the simplicity and severity of Egyptian outlines. The decoration of the base has a certain orientalism in the arrangement of the pyramidal designs, and the lotus—the sacred flower of the Nile—is worked in as an accessory to the detail.

There is something peculiarly suggestive and appropriate in choosing for the ornamentation of a clock—a mechanical apparatus that records the flight of time—emblems and figures taken from that country whose very existence to-day is a constant reminder of the centuries gone by, whose monuments stand as silent but sublime records of the glory of past

Greek Vase: Mitchell, Vance & Co., New York.

Egyptian Clock: Mitchell, Vance & Co., New York.

ages. The very name of Egypt brings up to the imagination the splended reigns of the Ptolomies and the Pharaohs, the superb pageants that are recorded in pictorial inscriptions on the tombs of the kings and in the comparatively modern papyrus and manuscript. And the fact that but a few of the stupendous works of that astonishing epoch of civilization are preserved to us intact, while our means of comparison are entirely inadequate to apply to the even more stupendous ruins that uprear themselves above the present level of the land, makes us contemplate the achievements of that age with something akin to awe. Who dare say what was the limit of the knowledge of the ancient Egyptians? Who can affirm that that vast monument of manual labor, that grandest achievement of engineering skill known to the world—the Great Pyramid—does not stand the silent monument to some gigantic discovery in science of which we know absolutely nothing?

Once it was thought that this monument was but the shrine of a king—that the carefully-concealed chamber with its stone sarcophagus was the place where the royal dust reposed. Later it was discovered that this theory was untenable on many accounts, and at length a famous astronomer advanced a theory that the whole structure symbolized a knowledge of the planetary system, of the shape, size and motion of the earth, comparable with our latest discoveries. Certainly the coincidence of his deductions with the position, size and shape of the several passages and chambers was more remarkable if his premises were wrong than if they were true. Perhaps in future ages the true meaning of the Great Pyramid may be discovered, and our age be reckoned as a night between two days.

One cannot look at this beautiful work of MITCHELL, VANCE & CO. without its ornamentation taking us back to those marvelous times and so reminding us of the flight of time and the mutations which all things mundane undergo. The vase, the shape of the base, and the smallest feature of the decoration have been studied with consummate skill, and produce a grand effect. The draped female heads on the pedestals at the side have a beauty uniquely their own. The kneeling attendants holding aloft their fans and balancing jars upon their heads suggest, by their costume and accessories, long-forgotten customs. The zone around the clock-face contains the symbols of the months, and the winged globe above may typify the flight of our sphere through space. The

thought, the conception of such a design as this was an inspiration, and the way it has been executed shows the talent and skill of the genuine artist.

We engrave on this page a decorated DISH or PLATEAU, exhibited by E. G. ZIMMERMAN, in the German Court. This fine and elaborate piece of work is of a class too highly finished and too costly for the ordinary uses to which plates are put, but it is designed to serve a purely artistic end by being

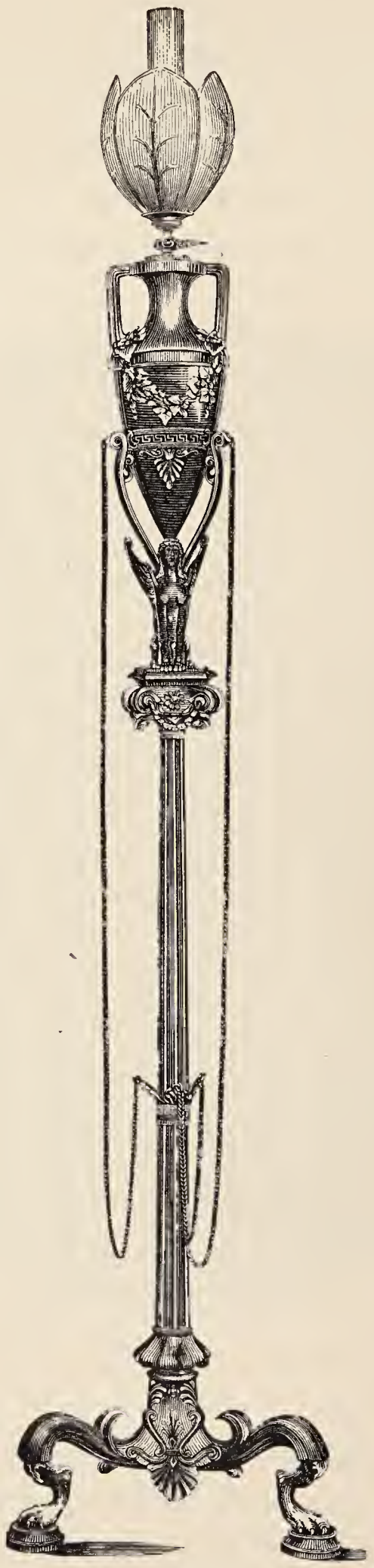
Silver Plateau: E. G. Zimmerman of Hanau.

suspended from the wall or given a place on a mantel or in a cabinet.

This custom of using artistic plaques and plateaux for decorative purposes is extremely popular just at the present time; and as the fashion is a good one and founded upon thoroughly artistic principles, it is likely to continue.

No one who has not tried the experiment himself or seen it tried by others can realize the excellent effect of hanging some brightly-colored dish or plate such as this upon the wall in the same manner as a picture. It lights up a room wonderfully, and when several of them are so disposed with pictures and engravings at irregular intervals the *tout-ensemble* is capital.

The delicate and shapely BRONZE LAMP, which is the subject of our next illustration, is one of the beautiful art productions of the establishment of MESSRS. SUSSE FRÈRES, of PARIS. France has always been the chief centre for the manufacture of artistic bronzes, and it is to the perseverance and energy of such establishments as the one from which this example is taken that she owes her precedence.



Lampidiare; Susse Bro's, Paris.

In Paris, which, as far as art products go, is France—in Paris the workman possessed of artistic taste or inspiration has unsurpassed and perhaps unequaled facilities afforded him for the study of design from the very best models. On Sunday, which is the workingman's holiday, the visitor to the great metropolis will find all the superb galleries and museums thronged with crowds of cleanly, orderly artizans of both sexes. These people have paid no entrance-fee to gain access to the treasures about them. The doors are open to one and all irrespective of class, and the only exaction is an orderly and decorous behavior.

Visiting any one of these museums on a Sunday, it is curious to observe what keen and

intelligent critics these artisans are. Especially in subjects with which their occupation makes them acquainted, is their judgment just.

Is it any wonder, then, that these men, going back to their work at the beginning of the week, take with them into the shops and manufactories an art-feeling, fostered and encouraged by the splendid examples they have been studying, which finds expression in the work they afterward produce? No: when we think of this fact, the reason why French workmen exceed all others as art-workers becomes evident.

Marble Font: Struthers & Sons, Philadelphia.

Look at this Lamp as a specimen of French work. See how perfectly plain and simple it is, and yet what elegance and grace of proportion it bears! A thin, fluted standard supported on curved legs terminates in a broad capital, on which rests a winged griffin. Above this figure is a rest or socket, in which stands the body of the lamp, a lovely amphora draped with garlands of flowers. Light chains fastened to the socket-ring depend nearly to the base of the standard, and remove the appearance of thinness to that portion of the

article at the same time that they give an effect of lightness. Chain ornamentation such as this was practised by the ancients at a very early day. The Greeks especially, who studied ornamentation of all kinds with zeal and enthusiasm, early discovered the fine curves and lines which were obtainable by this means; and the reader will not fail to observe how in this instance this simple addition of pendant chains finishes and completes the whole design. Supposing them absent from this lamp, the least critical observer would see the top-heavy appearance that would be presented. Then would come the question how to remedy this defect; and we venture to say that no one who had not previously seen and studied the effect of such ornamentation would think of suggesting chains as a remedy.

From the display of Messrs. Struthers & Sons, of Philadelphia, we select for illustration a Marble Baptismal Font, which in design and execution is entirely the work of their employees. It is, therefore, a thoroughly American work, and as such our city may well be proud of it; for in simplicity and grace, in purity of sentiment and harmonious blending of ornament suggestive of use, it is comparable with anything shown in the foreign courts.

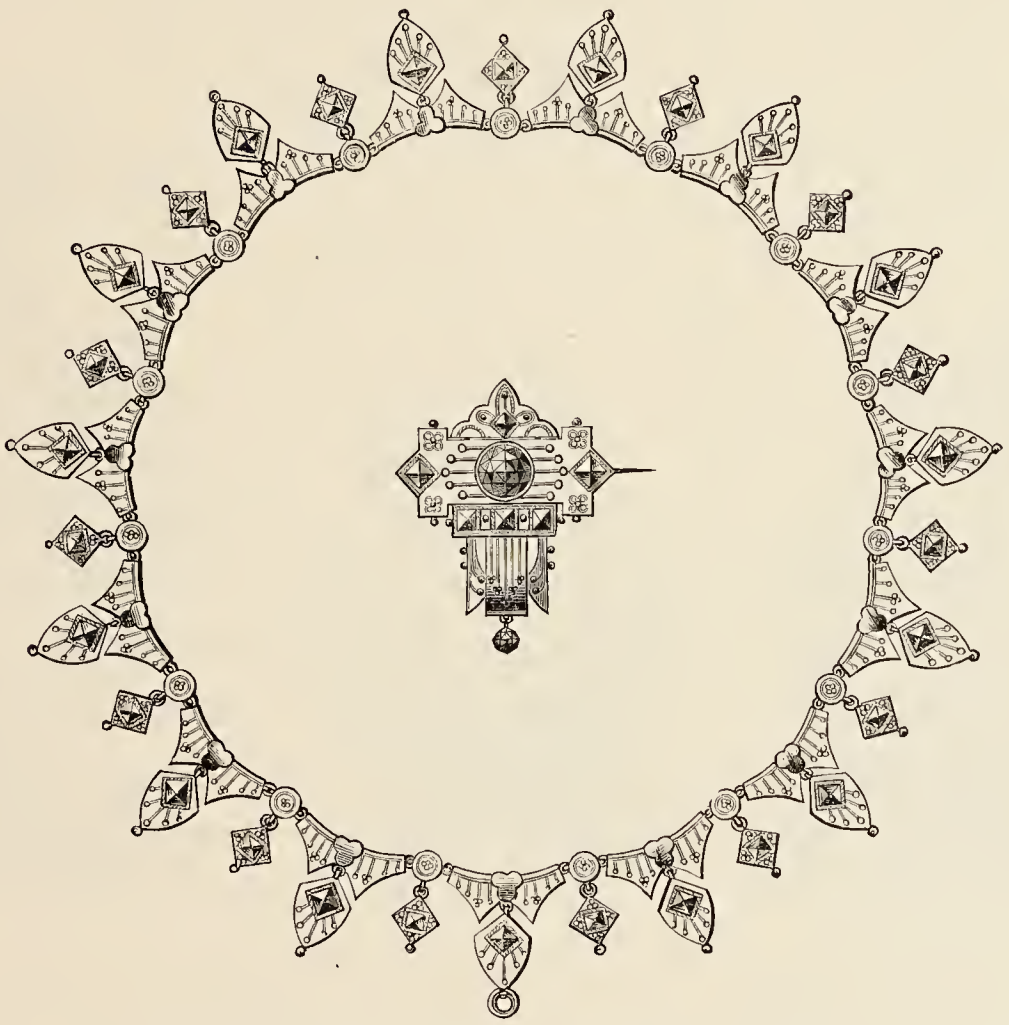
The artist has chosen for his theme the Lily, the flower emblematic of purity and innocence, and as such typifying the condition of those little ones who are dedicated to be Christ's servants unto death.

In the treatment of his theme the artist has shown almost as rare judgment as in his choice. From a plain octagonal base rises a slender, round shaft, on which rests a circular basin with receding mouldings lessening toward the rim. Around the foot of the shaft are strewn numbers of yellow lilies, their round, flat leaves disposed on the horizontal plane, while here and there among the group are sprays of the delicate garden-lily, the blossoms half hidden in their sheltering sheath-like leaf. Rising above these, almost to the rim of the basin, is a sheaf of lordly white water-lilies, their long, smooth stems bound to the shaft of the column by a ribbon-band, their broad leaves and graceful flowers encircling and completely hiding the lower portion of the basin.

The disposition of these flowers is simply beautiful, and one can readily see that nature was closely studied before the arrangement was made. Nothing more highly realistic than this group could be imagined, and the sculptor has reproduced it in the marble with a marvelous fidelity.

We are heartily glad that this font is exhibited at the Centennial Exposition, for such a work as this does more to disprove the hackneyed comment of Europeans upon our civilization—that we are too materialistic to regard beauty of ornament—than all the protests of our most honored writers.

In the matter of jewelry, goldsmiths' work and silver-plate manufacture, our foreign visitors are unceasing in their expressions of praise of the quality of the work done, and of astonishment at the richness and variety of the display.



Necklace and Breastpin: Morgan & Headley, Philadelphia.

It is indeed a most gratifying fact that in the manufacture of artistic jewelry our leading American houses compare favorably with foreign firms. It may be argued that for this species of work we import large numbers of European workmen, and that our designs are theirs or copied from French and English novelties. And doubtless it is true that hardly a large manufacturing jewelry establishment exists in this country without its quota of foreign assistants but for all that the work produced is in a large sense American, and, at least, an American public which pronounces upon its claims to fashion.

Moreover, there are certain set and well-defined styles which we have inherited, or by long use have a claim to, that from their intrinsic worth and beauty always claim the popular favor. A jeweler or goldsmith by following these can never go wrong, and even if he has no originality or invention himself, the number of celebrated antique examples at his command is quite inexhaustible.

In the beautiful specimen of American goldsmiths' work which we illustrate on page 103—a NECKLACE and BREASTPIN manufactured by MORGAN & HEADLEY, of PHILADELPHIA—the makers have combined a large amount of originality with a careful study of a strictly classical design. The result is a set of ornaments having all the merits of novelty combined with the best taste and most refined treatment. The necklace is light, graceful and highly ornamental without being garish, while the pin is remarkable for its simple elegance.

Stoneware, *grès* or *steingut*, as a certain kind of hard pottery made in England, France and Germany is called, according to the nation making it, was formerly manufactured in the latter country of a quality and cheapness that caused it to be largely exported to the former kingdoms. Antique German *steingut* of certain localities, such as Nuremberg, Cologne and Creussen, in Bavaria, is much sought after and prized by the ceramic student. The famous *Creussener steingut* mugs bring fabulous prices. Some of these pieces, which are of a dark brown color, have relief figures of the Apostles and Evangelists ranged round them in arcades, and hence are commonly called Apostle tankards.

The Cologne *steingut* or *grès*, as it is more commonly called, was at one time more generally known throughout Europe than any other kind of stoneware. The majority of the pieces were designed for the homeliest household uses, but their durability and the character of their ornamentation were such as to make the demand for them universal. The ware was mostly made in moulds, and was produced in immense quantities.

Of late years the reproduction of this *grès* has been undertaken at nearly all the large factories of Germany, and so successfully is it made that in many instances none but an expert can detect the difference, especially when, as is too commonly the case, the original marks are copied and the stamp of the true maker is suppressed.

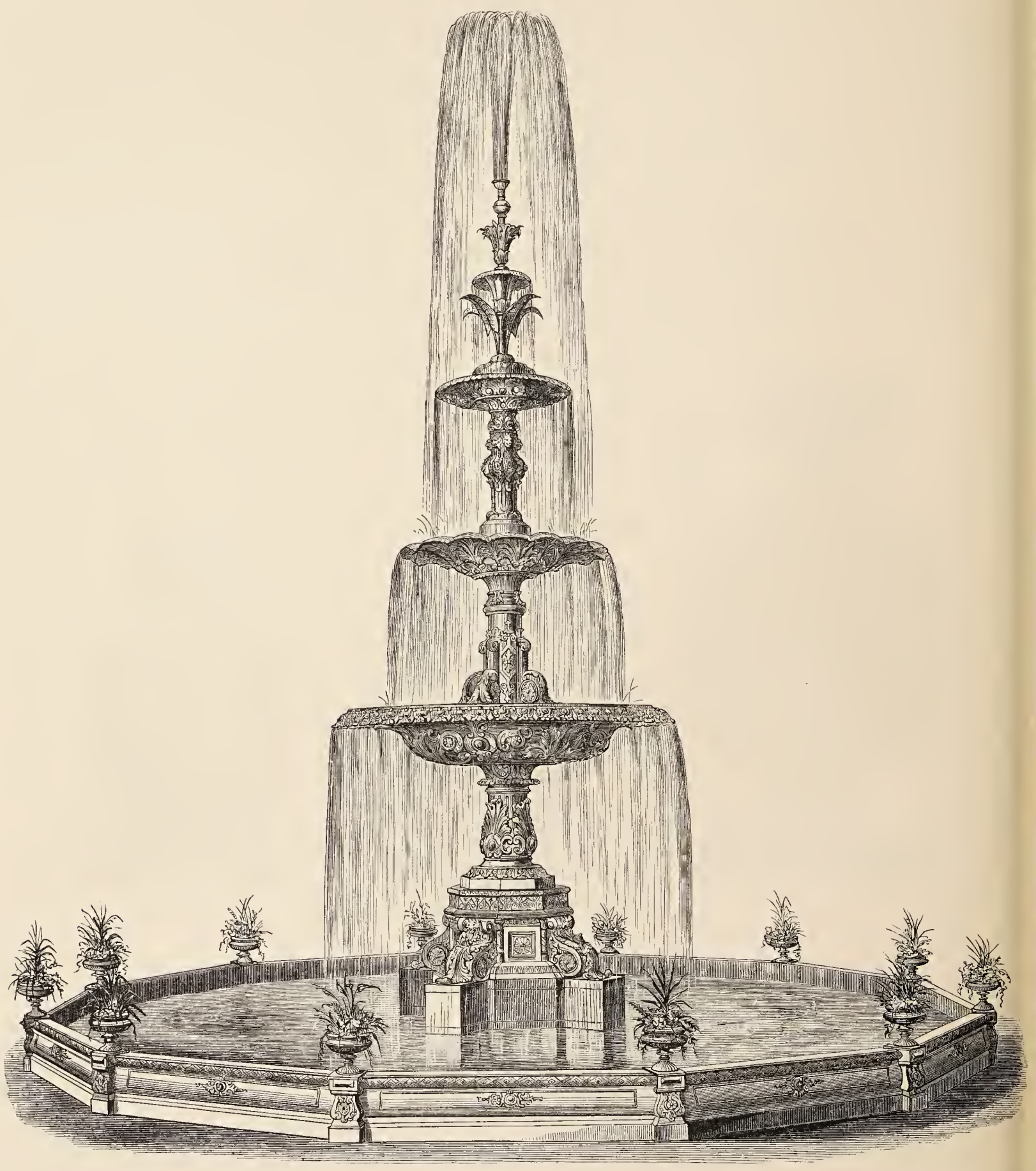
We illustrate on this page a group of three ANTIQUE GERMAN VESSELS, manufactured by MESSRS. MERKELBACH & WICK, of GRENZHAUSEN, who make a specialty of the production of this style of ware. The piece without a handle is a very fine copy of *grès de Cologne*. The body is of a soft gray color, on which is the raised ornamentation and the blue enamel coloring. The lower part of the piece has grooves or depressions radiating upward at regular intervals to the central zone, which contains a coat-of-arms supported by winged griffins and scroll-work. Above this is a collar with a twisted incised

German Steingut: Merkelbach & Wick, Grenzhausen.

pattern, separating the zone from the arabesques and garlands which cover the upper part of the bowl. Around the neck is a band of rosettes in low relief picked out with color.

The ewer, the largest piece of the three, is copied after a very favorite style. The bowl is flattened, with medallions containing relief ornamentation and a display of arms and heraldic devices upon the sides. A mask is introduced as an ornament to the spout, but the handle is made very plain and as unobtrusive as possible.

The third piece partakes in its decoration of a more oriental style. Its shape, too, is Eastern and might have been copied from a Moorish vase. The



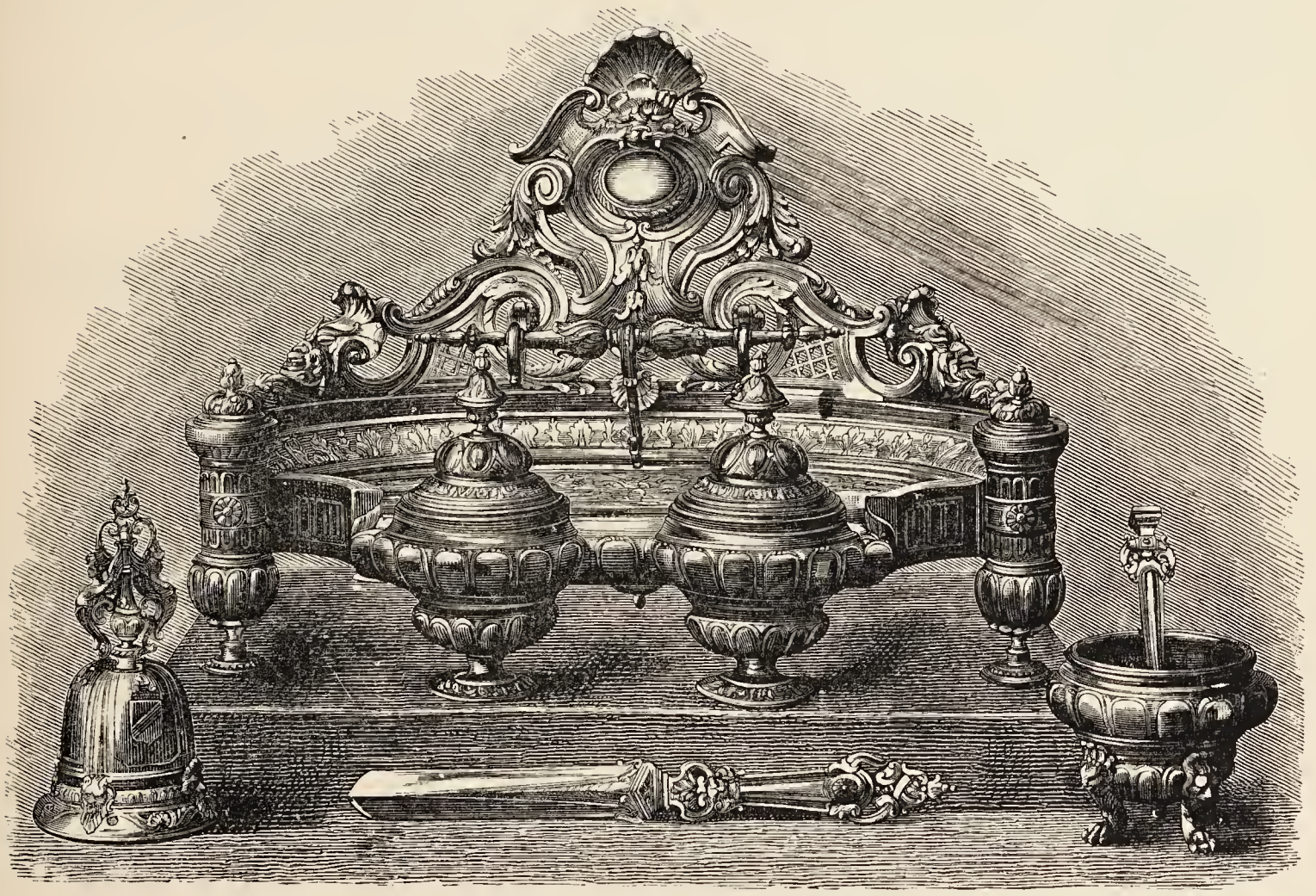
Iron Fountain: The J. L. Mott Co., New York.

decoration consists of brilliant arabesques dispersed over the surface in a pleasing and effective manner.

On this page we present our readers with an illustration of the handsome

Fountain manufactured by the J. L. Mott Co., of New York, that graces the northern portion of the nave of the Main Exhibition Building. This fine example of artistic casting is erected just as it is seen in the engraving at one of the divisions of the nave, and is kept playing water all day long.

Indeed, the only way to judge of the beauty of a fountain is to see it in operation, for the fall and curves of the water form a component part of the



Bronze Inkstand: Henri Perrot, Paris.

general effect. And this fact should always be taken into consideration by the designer, although evidently it is too often neglected. How often we see fountains that in themselves are beautiful, but when seen in operation the apertures from which the water is ejected and the curves made in its fall render the whole thing ridiculous or monstrous.

Nothing is more beautiful than falling water, whether it is in sheets or in broken streamlets or dispersed in spray; and in the present instance we may be said to have these three phases combined.

The fountain rises from its basin in a series of four basins, each smaller than the other, and is surmounted by a small vase-shaped pinnacle, from the orifice of which a slender column of water shoots upward to fall again in spray. From over the smooth lips of the upper basins other water falls in sheets into the third compartment, which has scolloped edges; from the depressions here it falls in streams into the fourth receptacle, from which it flows in one broad transparent sheet. The effect of all these changes is exceedingly pretty, and yet no one of them is of a nature to hide the beauty of the design.

The BRONZE INKSTAND, with its accompanying set of writing appliances,

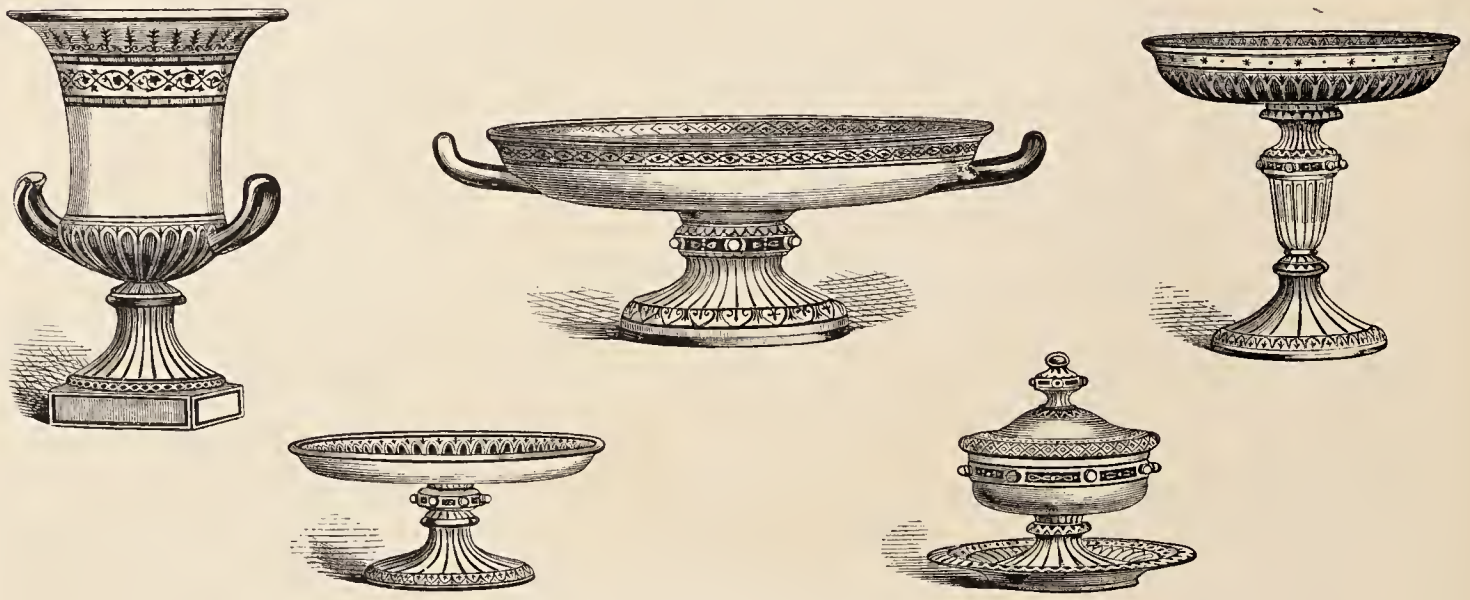


Table Glassware: Lobmeyr & Co., Vienna.

manufactured by M. HENRI PERROT, of PARIS, which forms the subject of our illustration on page 107, is an excellent example of the fondness for rich ornamentation which is characteristic of the French. The pieces are really sumptuous in design and workmanship, and simply as ornaments to a secretary they would command attention anywhere. If the philosopher's theory, that our thoughts take color from our surroundings, is true, the fortunate possessor of such writing appliances as these should have flights of fancy such as the Arabian romancers might envy.

The GLASSWARE of LOBMEYR, of VIENNA, which we illustrate on this page, is both useful and ornamental. One of the pieces is a crater vase with handles, and is probably intended merely for ornament. But all the other pieces are

suitable for table furniture, either as card-receivers or as receptacles for dainty and choice confections at dessert. And in this connection we may say that we trust the time is rapidly approaching when people generally will open their eyes to the fact that it is within the power of every one to make the dinner-table something more than a board from which to feed,—to beautify it so that it may be æsthetically attractive.

The sooner the absurd custom of putting down upon the table only certain dishes of a conventional shape containing certain meats, and removing

Enameled Casket: Emile Philippe, Paris.

them as soon as they have done their purpose—the sooner this absurd custom is done away with the better.

There is not a household so poor that has not some ornamental dish or vase in china or glass that would answer a far higher and better purpose if used to grace the board at meals than if left upon a mantel-shelf or behind a glass simply to be looked at.

Our good grandmothers and, in some instances, our mothers washed the cups and saucers themselves after the evening meal, and the guests sat by and chatted while the sweet housewifely action was going on. But now, because servants are careless, we are told that we must be content to look at the odd and pretty bits of china that we may possess as curiosities too precious to be

used, and take our meals off sets any piece of which can be replaced if by chance it gets broken.

All this should be changed. With a little care and trouble the dinner-table could be made artistically beautiful. For example, with one of these beautiful dishes of LOBMEYR'S made to answer some trifling purpose at dessert, a refining and artistic tone would be given to all that portion of the meal.

Not satisfied with their country being the centre for the production of artistic jewelry and personal ornaments of all kinds, the French artisans exert themselves to produce elaborate repositories for the precious productions of their skill. Such a JEWEL CASE as the one which we illustrate on page 109, manufactured by M. EMILE PHILIPPE, of PARIS, is a treasure in itself. It is one glittering, brilliant mass of enamels on metal. The skill with which the intricate pattern has been wrought and the strength with which the bits of bright color have been contrasted are very remarkable. The mere technical skill and patient labor required in the production of such a work as this is very great, and to produce the finished work without a flaw can only be accomplished by long familiarity and practice in the processes required. By looking carefully at our engraving, some idea of the minuteness and delicacy of this work can be obtained. Each shade represents a different enamel color, and it will be seen that the central panels contain intricate foliated patterns. Around each of these panels is a narrow edging or frame of small squares of vitreous paste of different colors; then comes a border of scroll-work and medallions within another edging similar to the first. The whole affair is not more than seven inches long by five inches wide and height, and may be called a *bijou* to contain *bijoux*.

England may well be proud of the exhibition made by her colonies at our Centennial Fair. India, Australia, New Zealand, Ceylon, British Guiana, and the far-away settlements on the Gold Coast, the Bahamas, the Bermudas and Trinidad, Queensland and the Canadas, each and all have come to us, their elder sister, proud to show us and each other the evidence of their young, vigorous life. Yet some of these colonies have already reached a maturity when they begin to look forward to being their own masters; and it is likely, before many more years have passed, that the mother-country will assist them to set up governments for themselves. England is now a wiser mother than

Wrought Iron Gate: H. R. Ives & Co., Montreal.

when she angered us to break the leading-strings. She realizes that her other children, now growing up around her, will some day want to be powers unto

themselves; and instead of discouraging, she encourages them in the idea. Such a policy gives the colonies a healthier, manlier growth. When they achieve independence they will have nothing but affection for the mother who nurtured them, and they will stand strong and ever ready to resent any insult that may be offered to her.

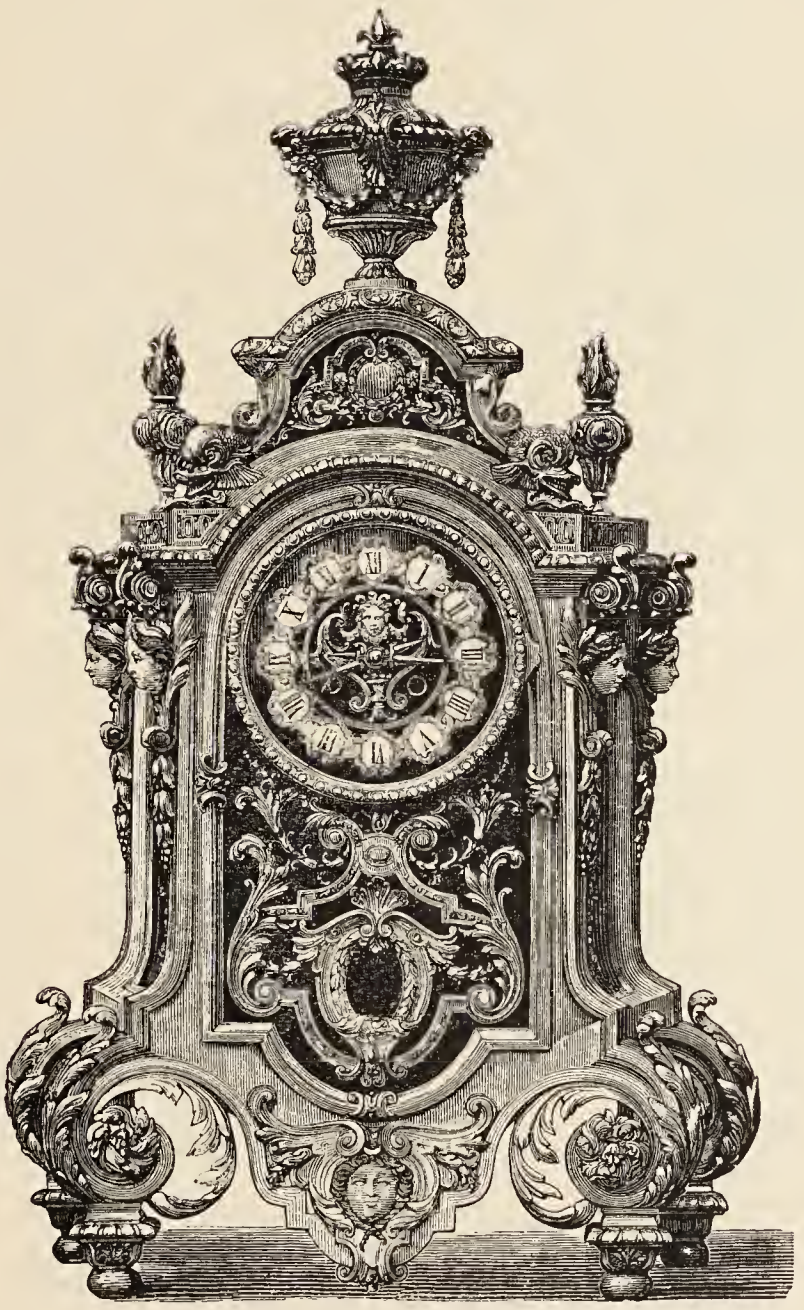
It is positively amazing to contemplate the progress which these colonies have made in the last few years. In the Canadian Court we see the largest evidence of this, because from her neighborhood she could make the most general display. There is in this section an evidence of refinement and art-culture as well as of solid progress that shows a wonderful maturity of civilization. Look where we will, among the ceramics, the textiles, the metal-work, we see this.

Candelabra: Susse frères, Paris.

In metal-work there is especial excellence. Take, for example, the subject of illustration on page 111. It is a WROUGHT IRON GATE, manufactured by MESSRS. H. R. IVES & CO., of MONTREAL. We know of no more thoroughly artistic example of this kind in the whole Exhibition, and this is saying a great deal, for England contains some splendid pieces.

Notice with what rare skill solidity has been combined with lightness. Each gate is thoroughly braced by the standards and the cross-pieces containing the panels. This first and chief point accomplished, the artist can exercise his fancy upon the decoration. He has chosen a vine as his theme, and has woven it between the uprights in a graceful and symmetrically conventionalized

way. With the same motive he has ornamented the arches formed by the curved braces with a whorl of leaves, tendrils and blossoms, and again the foliation appears in the finials to the uprights and standards. We bespeak for this piece of work a degree of attention on the part of our readers, not only because of the neighborhood from which it comes, but because of its own intrinsic excellence.



Clock: Susse frères, Paris.

The CLOCK, made by SUSSE FRÈRES, of PARIS, which we engrave on this page, stands some thirty inches in height and is profusely ornamented. The front and all the casing are of brass, the body is of ebony, and the figures of the dial are painted on round porcelain medallions.

The style in which the design for this clock has been conceived seems to be that of Louis Quartorse, when French art fairly reveled in elaborateness of ornamentation. We see this luxurious feeling in the rich, sweeping curves of the base, in the heraldic-like decoration below the dial, and in the shape and garlanding of the urn surmounting the upper portion of the piece. We see it, too, in the winged heads displayed on the front in relief as medallions, or in the round scrolls as ornaments to the corners; and it is also visible in the flaming vases on the top. All of this work is executed with the finish and skill of which French workmen are such masters, and the result is an elaborate and in a double sense a striking clock.

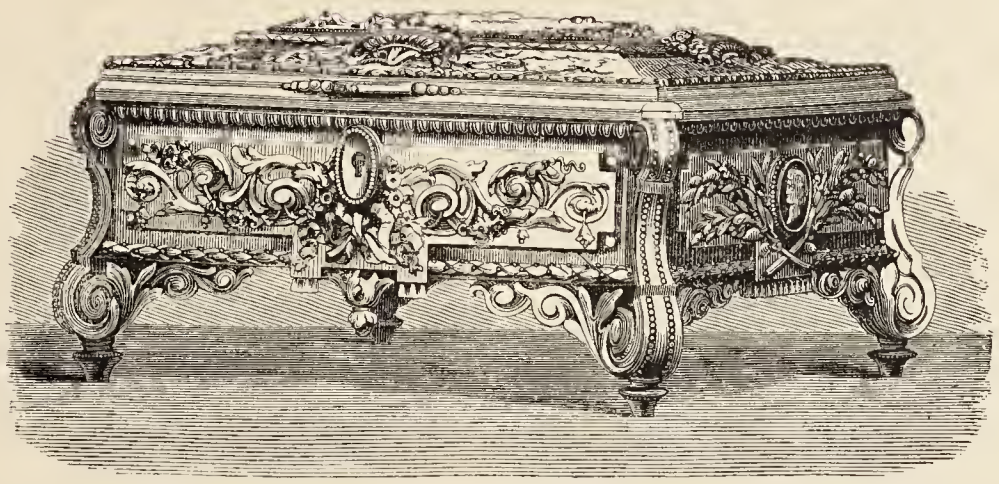
Another work exhibited by the same firm is the BRASS CANDELABRA which

forms the subject of our next illustration. This is conceived in a different spirit and has more of a classical feeling. From a square base, but little ornamented, rise four banded pillars, on which rests an entablature supporting an urn with six branches, to each one of which is affixed a candle-socket. In the centre, upheld by curved tendrils, is a seventh socket-cup, shaped like the others. All of this upper part of the candelabra is very ornate indeed, and in striking contrast with the lower portion. Here the central figure is an Amazonian warrior, clad in full armor, with one hand resting upon the shield by her side, and the other raised in an attitude of warning. The pose and general modelling of this figure are very fine and spirited, and the artist has done well in so subduing the accessories as to give it all the prominence possible.

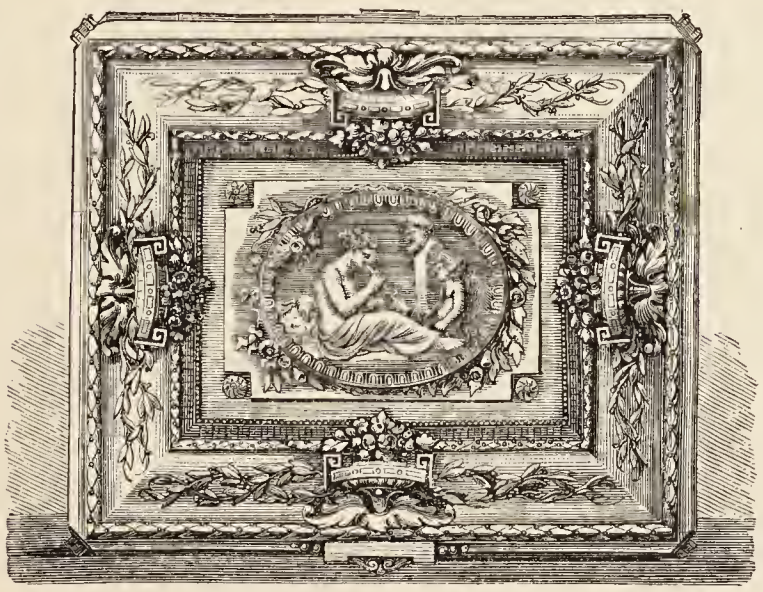
The late Franco-Prussian war has had a curious effect upon industrial art in Germany. The empire had not ended its rejoicings over the triumph of German arms when the French milliards were scattered broadcast over the country and a period of unexampled prosperity ensued. The masses of the people earned wages that allowed them to purchase freely articles that had previously been beyond their means. A luxurious manner of living became common, and in a measure unfitted every one for the period of commercial depression that afterwards swept like a wave over all Europe. It is plain that all classes of individuals easily and quickly adopt the more expensive habits of living made possible by an increase in income, and that they are slow to retrench when the necessity comes. Yet a very remarkable fact not generally realized, although it is the result of the same sentiment in a community, is the converse of this proposition. For example, in our own country during the war, the price of flour rose so rapidly that persons who had small incomes did not attempt to buy the higher qualities, but contented themselves with good medium grades; yet when the price of flour began steadily to decline, the same buyers continued paying their maximum price, until to-day nine-tenths of the housekeepers in the land are using grades of flour which they could not have bought during the war, and that quality which they used then will no longer content them. The same feeling is illustrated in rents. When rents were high, people contented themselves with cheap lodgings; but as soon as rents began to fall, they moved to as fashionable quarters as the same amount

of rental would procure. Then we hear the cry that the cost of living is still as great as it ever was, when the truth is that the cost of living has decreased, but the manner of living has proportionally increased, and the fault lies with the housekeepers themselves.

Now, this is just what has happened in Germany. Certain articles before unknown to certain classes were bought with eagerness when money was plenty, and when thalers became scarce the demand, though in a lesser degree, continued. The result is readily anticipated—manufacturers everywhere set themselves to work to manufacture cheaper lines of the same goods. The first consideration was that things should be cheap, and the second was that it should be showy, in order to cater to a vulgar and uneducated taste. Work executed under such influences cannot fail being meretricious and bad, and hence it is that the German display in our Centennial is so universally condemned, especially by Germans, as evidencing a standing still or even a retrograde movement. As to the display of Bismarcks, Von Moltkes, Crown Princes, etc., we are not disposed to judge of them as severely as the German



Silver Casket, Erhard & Sons, Germany.



Top of Erhard & Sons' Casket.

commissioner does. That they are in bad taste at an international exhibition of this character is undoubted, but they are nothing more nor less than the natural forms of expression which all countries have adopted after achieving like conquests. These men are the heroes of the hour among the Germans, and the people at least do not tire of the manifold ways in which their heroes' likenesses are presented to them.

Of course the remarks that we have made above apply to the German exhibit as a whole. There are many and notable exceptions to the rule in all the various sections. In the stalls devoted to the display of goldsmiths' work, jewelry and plated ware are some of the most beautiful things to be found in the whole Exhibition. One of these we illustrate on page 115. It is a SILVER CASKET, manufactured by ERHARD & SONS, of GERMANY. This casket is about nine inches long, six inches wide and six inches high. It is ornamented with scroll designs in *repoussé*-work upon the front and back, and the two side panels contain portrait-medallions between branches of laurel done in the same manner. The angles at the junction of the sides are concealed by curved projections terminating in scrolls at the feet.

The lid or cover to the article is somewhat more elaborately ornamented by the same *repoussé* process. On the four sloping sides are baskets of a classical shape containing fruit and flowers. On either side of these are sprays of leaves woven together in a simple, graceful pattern. In the upper panel is a square, raised frame, within which is an oval containing a group of a cupid and a nymph, the latter playing upon a flute. Beside the cupid is a harp, and in the distance are sheep and a pastoral landscape. The artist has taken rare pains with this part of his work, and has produced a very effective and pleasing bas-relief. As no gilding or enameling is used in decorating this casket, the claim for attention which it has is solely its artistic workmanship in this particular branch of the silversmiths' trade. As *repoussé*-work is now so fashionable that nearly all the large manufacturers of plate in Europe and this country are producing it, our readers will be interested in contrasting the work of the various nations which we illustrate. In this way those who are directly interested in the process will gain valuable ideas, and those who simply take an interest in industrial art products generally, will be able to form an intelligent idea of whatever characteristics are distinctly national.

The PAIR OF VASES illustrated on this page are the *chefs d'œuvre* of the rich display of artistic pottery and porcelain made by the MESSRS. DANIELL & SONS, of LONDON. Their stall, which faces on the central transept close to the nave of the Main Building, contains one of the most interesting and varied collections of the choicest productions of noted English potters anywhere to be seen; yet even here among the numerous triumphs of ceramic art, these vases

Vases: Daniell & Sons, London. From the collection of Sir Richard Wallace.

are quite incomparably the most beautiful and precious. We shall endeavor to give the reader an idea of the appearance of these remarkable works of art, as far as words can do it; but we urge all who would have a realizing sense of their beauty to take an opportunity of viewing for themselves.

The vases are of porcelain, standing about two feet high, and are decorated around the zone with figures painted or modelled in *pâte-sur-pâte*. We shall have something to say of this process after having finished the

description of the pieces. The number of colors and shades used in the decoration is numerous, but the principal body-color on which the figures are painted is a dark olive-green. Gold has been introduced in places to heighten the general effect.

Below the curved lip of each vase, which is gilded, is a space extending to the gold band at the junction of the handles with the neck, enameled with a deep *blue de roi* with gilt stripes. At the narrowest part of the neck is a raised gold band, above which are gold arabesques. From here down to the curved collar, which is composed of gilt and red, the neck is of a delicate celadon color with radiating stripes of white.

Below the zone on which the figures are painted is a white band, beneath which delicate gilt scrolls are disposed upon a light green ground which extends to the base, which is gilt. The central zone is a deep olive-green of peculiar richness, and on this the figures of Cupids and the Graces as seen in the illustration are painted in *pâte-sur-pâte.*

In order that the reader may understand what this process is, we cannot do better than make an extract from M. Arnoux's account of the process as practised at Sèvres, as quoted by Mr. Blake in his Report:

"The name *pâte-sur-pâte* explains sufficiently the process, which consists in staining the body of the hard porcelain in celadon, or other color, by the addition of a colored mixture, of which oxide of chrome is generally the chief ingredient; and then, when the piece is still in the clay state, to paint or rather model upon it with a brush, using white porcelain body as the pigment, and taking advantage of the transparency it will acquire when fired to produce an effect similar to that obtained in the Limoges enamels, by working the semi-transparent enamel on a black ground. Consequently the artist will increase the thickness of the white clay for the high lights, and decrease it where the color of the ground is to be seen through. Much experience is required to calculate the effect, the white clay before firing being equally opaque in the thin as in the thick parts. Of course any mistake is irremediable, as it can only be seen after the piece is fired. It was from studying the Chinese celadon that Mr. Ebelman* started this kind of porcelain. The colors used on account of the high degree of temperature are extremely limited."

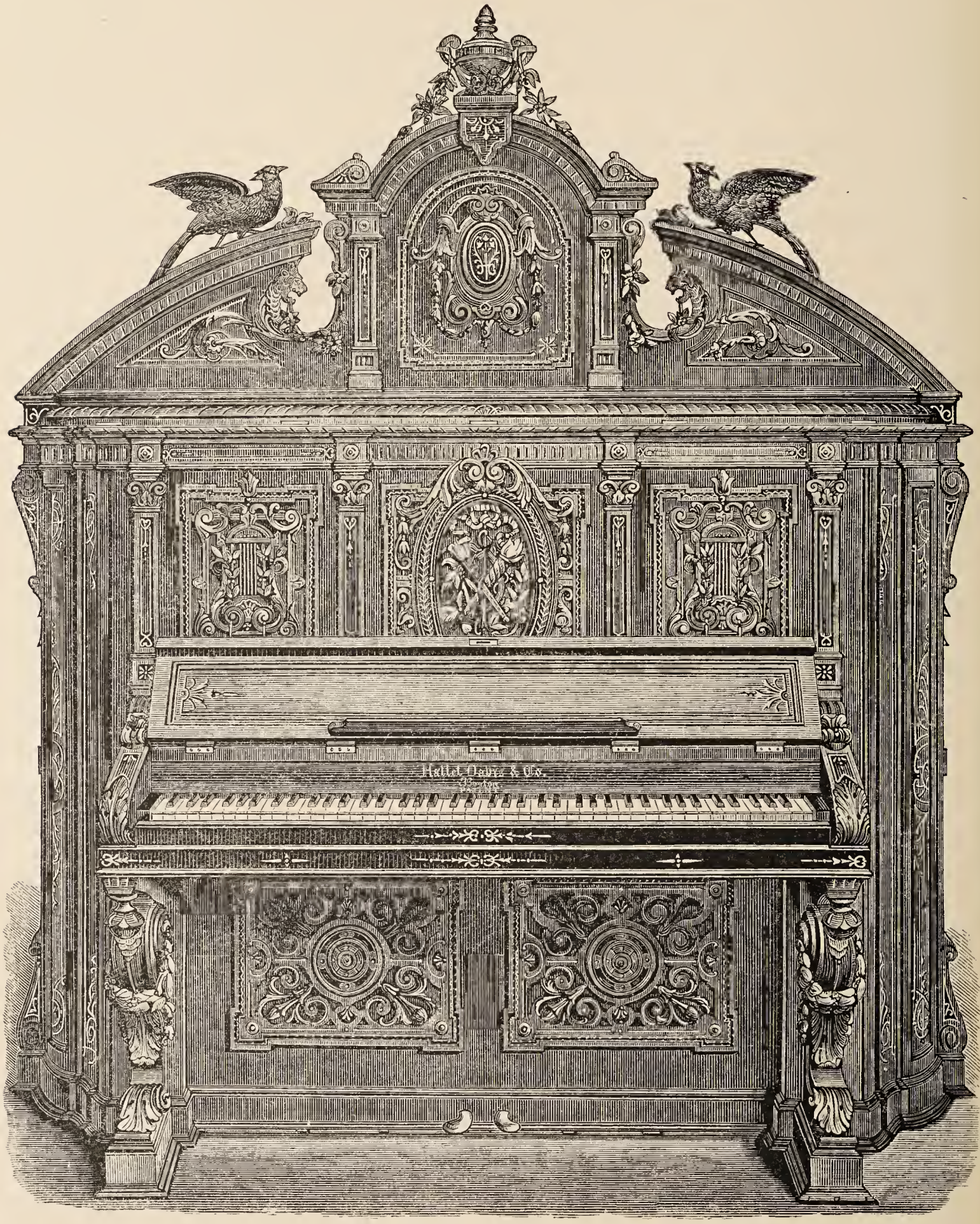
*A director of the Sèvres works and the discoverer in Europe of the *pâte-sur-pâte* process.

The reader is now enabled to see from this description how difficult the process must be and what wonderful skill the artist possesses who can model such graceful, life-like figures as are here portrayed. A peculiar and beautiful feature in the finished work is the effect of high relief (when in reality it is very slight) produced by the semi-transparent porcelain body.

In the Paris Exposition of 1867, examples of this work were publicly exhibited by Sèvres for the first time, but the process of manufacture was kept a secret. English workmen, however, who visited the Exposition examined the pieces critically, and on their return home published what appeared to them and what proved to be the true method of producing them. Yet it was not until the Franco-Prussian war, when many French artisans took refuge in England, that the latter country began to manufacture *pâte-sur-pâte.* At that time, among the refugees from France was M. Solon, of Sèvres, the most distinguished worker in the new process in all Europe. Immediately on his arrival his services were engaged by the famous firm of Mintons, and it was not long before their factory produced work equal to any ever done at Sèvres. These vases which we have been discussing are the work of M. Solon, and were executed at the Mintons factory. The Messrs. Daniells are the London agents for this firm, and these pieces were executed to their order. The reader may be curious to know what such superb examples of ceramic art are worth, and he may get some idea from the fact that this pair have been purchased by Sir Richard Wallace for six hundred guineas.

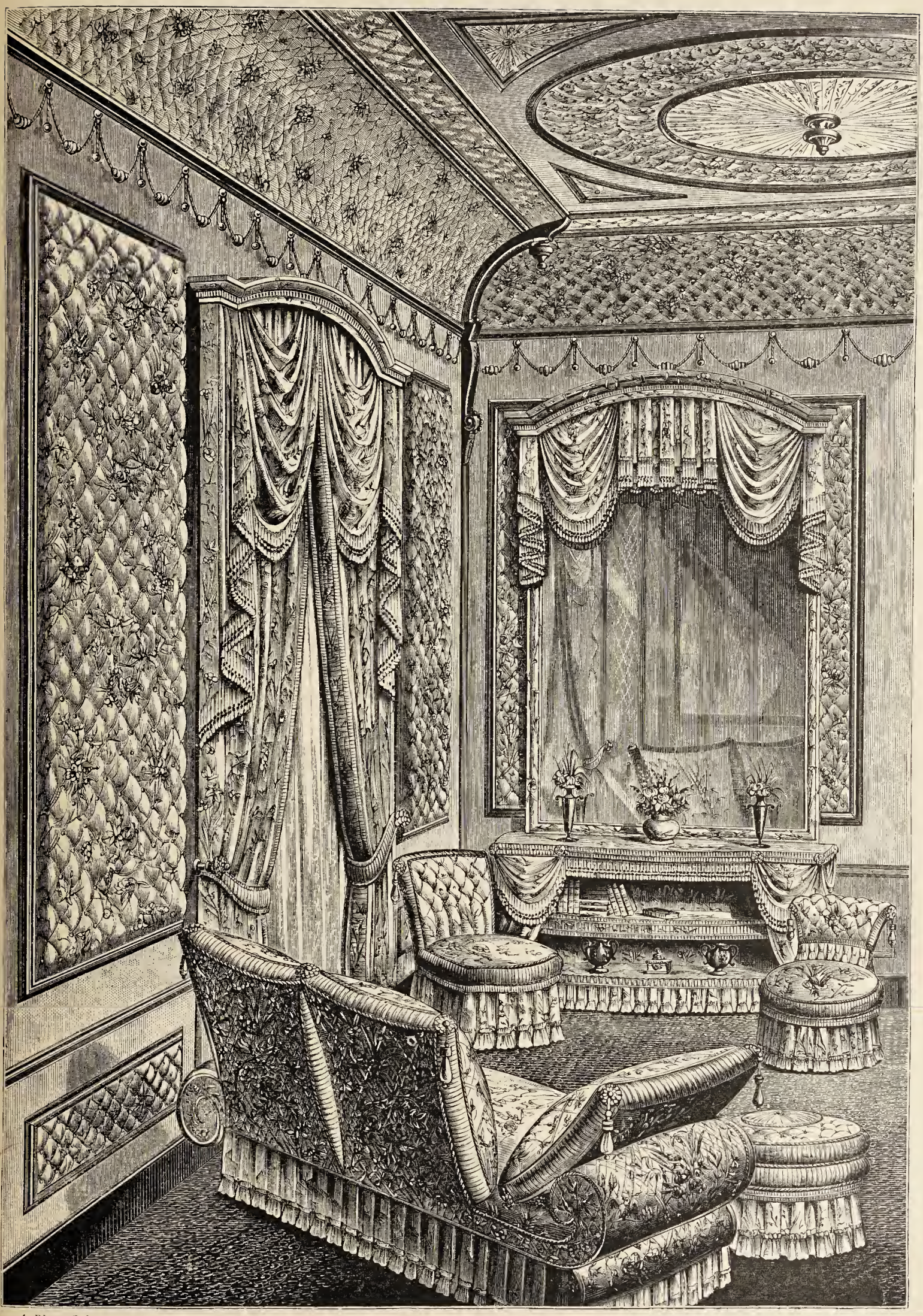
The superb Piano which we illustrate on page 120 was manufactured by Messrs. Hallet, Davis & Co., of Boston, and is undoubtedly the most elaborately constructed instrument of its kind at the Exhibition. The case is made of ebony with an occasional inlaying of narrow strips of precious wood to give effect to the ornamentation. The reader will see from our engraving how remarkable this ornamentation is. All of it is hand-work, the production of skillful carvers. Much of it is in very high relief; other portions, such as the birds and urn on the upper portion and the wreaths at the base, are worked out in full; while the panels, with their wreaths, scrolls, medallions, and symbolic figures, are elaborated with great fidelity of detail.

It is one of the anomalies of art that the piano, which contains the soul of harmony, is generally the least harmonious and ungraceful-appearing object



Piano, Ebony Case: Hallet, Davis & Co., Boston.

of the modern drawing-room. It is usually bow-legged and veneered, badly shaped and worse decorated. The old-fashioned spinet was decidedly superior



A. Blanc, Del. *F. Faas, Engr.*

Interior Decoration Carrington, de Zouché & Co.

as far as looks go, to the modern "grand." England in her new Renaissance makes Greek and Elizabethan drawing-rooms with furniture to match, but she has not evolved an Eastlake piano, yet. We are glad, therefore, to claim for an American the honor of having made a PIANO that is harmonious both within and without.

This piano placed in a music-room would form, as its use requires it should, the central and prominent ornament of the apartment. Then the general design and ornamentation are of such a character that they can be repeated, with proper modifications, in all the other articles of furniture in such a way that each may accord with the others and the *tout ensemble* be perfect.

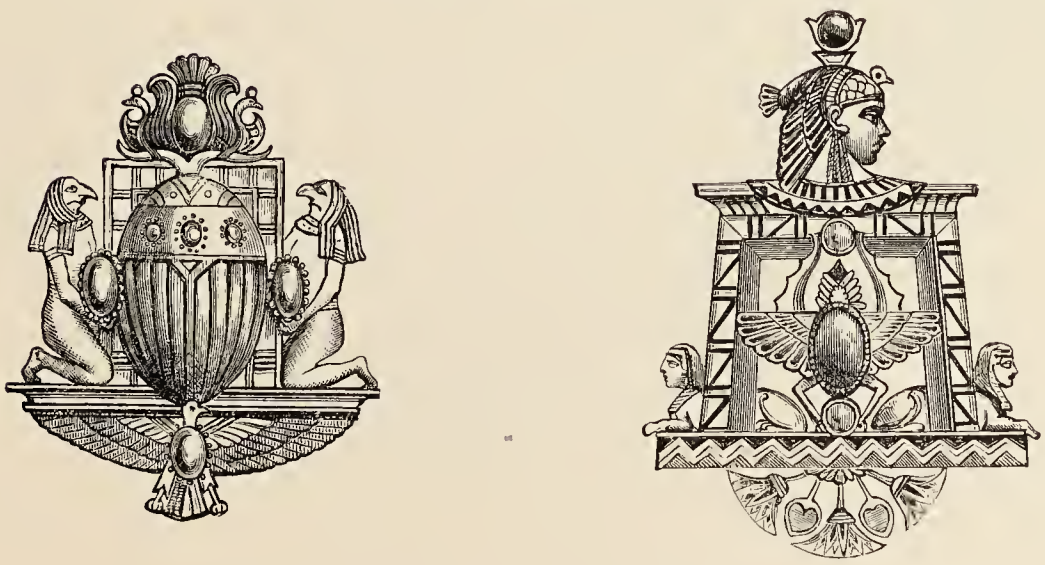
An interesting feature of the Exhibition is the method which the upholsterers, decorators and furniture-dealers have chosen by which to display their goods to the best advantage. This method consists in dividing the sections allotted to them into rooms, which are afterwards fitted up as parlor, library, boudoir, dining-room, or any special apartment. Some of these "interiors" are perfectly lovely, others are regal in their magnificence, and others again are furnished with the severe simplicity which affects a return to those times when the luxurious appliances of modern times were unknown.

Perhaps in no other department of the Centennial is it possible to obtain a better idea of that indefinable influence which we call taste than by observing the sections devoted by the group of nations, England, France and the United States, to the subject of furnishing. Here we get glimpses of the surroundings of the classes who set the fashions, such as could be had in no other way. We look into the most private apartments, the boudoirs and bed-chambers, which are so artfully arranged as to suggest occupancy. Bric-a-brac and knick-knacks are disposed about in studied carelessness so as to make the effect as natural as possible.

No more common error is made in these times than the habit of blaming the paper-hanger, the upholsterer and furniture-maker, each and all, for the ill effect of a room which we have "furnished" ourselves. One often sees paper, hangings and furniture, which in themselves are beautiful, so badly grouped by the ill taste of the owner as to make each appear ugly. There is no opportunity for fair judgment of the merit of a dealer's taste and skill

unless everything is grouped according to his judgment; and no one can study the elegant and rich effects produced in the sections we are discussing without

Necklace and Ear-rings: Egyptian Government.



Egyptian Brooches: Emile Philippe.

being convinced that the covert sneer in the phrase "the room is upholstered and not furnished" is but an attempt to put the blame where it does not belong.

In our engraving we illustrate a BOUDOIR fitted up by MESSRS. CARRINGTON, DE ZOUCHÉ & CO., of PHILADELPHIA, which is the very abode of luxury. Any man looking into such a nest will feel himself a privileged person and will probably look anxiously around for the legitimate occupant. The ceiling and sides of this apartment are panelled with tufted cretonne of rich, warm colors, relieved by a stile of drab-colored damask with mouldings of ebony and gilt. The pattern of the cretonne is a running vine with flowers trained over a trellis, and is exceedingly graceful and pretty. The upholstering of the chairs, pillow lounge and ottoman is in a cretonne matching the panels, and the same material is used around the large mirror at the end of the apartment and on the shelf at its foot. Puffing and box-plaits are used to make curved and broken lines and to give additional effectiveness to the arrangement. The room in its suggestions of repose, comfort and refinement is the beau-ideal of a boudoir.

The JEWELRY exhibited by the Government in the Egyptian Court is interesting both for its technical excellence and for its quaint and artistic adaptation of forms used by the early workers in the precious metals. Of Egyptian personal ornaments of the old time but very few specimens have been preserved to us, yet there is abundant evidence of the high antiquity of gold and silver ornamental work. In the twenty-fourth chapter of Genesis we read of golden ear-rings and bracelets, and constant reference is made throughout the Bible to articles of a like description. In the Exhibition of 1862, a splendid set of gold ornaments, found at Thebes in the tomb of a queen who reigned fifteen hundred years before the Christian era, was shown, but this set is a unique example of that time. In the NECKLACE and EAR-RINGS which we illustrate on page 123, small gold coins form a principal feature of the design. They are suspended, singly and in groups, from figures of fine gold filagree work of elaborate oriental pattern.

The BROOCHES which illustrate the same page are made by EMILE PHILIPPE, of PARIS, and though they are equally Egyptian in style, we have in them a class of work of a very much more modern character. Here the precious metal, gold, takes a secondary place, being used simply as a setting for more precious stones, and a fictitious value is given to the metal by the use of enamels. The first brooch consists of a crystal scarab, or sacred beetle, the spots on the

body being marked with colored stones, inlaid. On either side are kneeling figures of a type purely Egyptian, human in all but the face, which is that of a bird. These figures are of silver, enamelled in red and green, and deco-

Pompeian Toilette—Plaque: Messrs. Elkington & Co., Birmingham.

rated with gold. These are supported on the outstretched wings of a bird, the plumage of which is also brilliantly enamelled.

The second brooch is even richer in color than the former, and is a

remarkable piece of design. It contains numerous symbolical figures, such as the crouching sphynx, the winged beetle, the female head with the duck emerging from the forehead, the sphere, and the sacred flower, the lotus. Emeralds and other precious stones are introduced into the design.

The only examples of silverware manufacture in England, shown in the British section, are to be seen in the Court of the Messrs. Elkington & Co., and if we could regard their display as representative of the craft to which they belong, other nations would be put far in the back-ground. But the Messrs. Elkington in the vastness of their business, in the number and talent of the artisans whom they employ, occupy a position so far above the other firms engaged in the same manufacture, that their display is not representative of English silversmith work; it simply illustrates the excellence of their own productions, and in this respect it is representative of the highest achievements of the art in this century.

In one respect their exhibit differs from the others of the same class made by manufacturers of other nations. It is uniquely an art display. They have not attempted to send examples of their manufacture in sterling silver and electro, for in this respect their work is of a character to defy competition, and their reputation is already world-wide. Hence they have excluded from their Court all articles which do not possess, in the strictest sense of the term, high artistic merit, both as regards design and execution; and for this reason their Court forms one of the greatest attractions in the Main Building. No one should fail to visit it.

As it is our purpose to illustrate, from time to time, a number of the most noteworthy of the articles in this superb collection, a brief account of the exhibit as a whole, and a word respecting the firm itself, will be interesting and appropriate in this place.

Although the Messrs. Elkington & Co. have branch establishments at London, Liverpool and Manchester, their manufactory is at Birmingham, where they employ some two thousand workmen. In those figures we have the data for an estimate of the vastness of their business. This business owes its beginning to the patient perseverance of one man, who devoted all his energies to the accomplishment of one end—the application of electro-metallurgy to industry.

Forty years ago Mr. G. R. Elkington, the founder of the firm, after infinite labor and trouble, and in the face of the sneers of the manufacturers of the old school, developed the process of electro-plating metal into a useful art. Before him scientists and curious experimenters had learned the secret of the Voltaic current, yet its prodigious effect upon the arts as an element of use did not occur to them. With the successful application of the new agent the manufacture of silverware was revolutionized. The firm of Elkington & Co. having the lead, kept it, and not content with that, exerted themselves to distance all competitors. In this also they succeeded. Nor was this all: the manufacture of sterling silver and all the useful and ornamental purposes to which it could be applied was made to keep pace with the growth of the other industry. The very best artists that ample means could secure were employed to exercise their skill on the precious metals. Each of the many branches which are within the sphere of metal-workers was cultivated and brought to the highest state of perfection, so that to-day this firm occupy the position of the largest metal-working manufacturers in the world, producing gold and silver work of every description from articles of mere utility to purely ornamental objects of the highest artistic excellence.

Embroidered Chair: Royal School of Needlework.

The Elkington exhibit at the Centennial may be conveniently divided into four classes—artistic silver-work proper; *repoussé*-work in silver, iron or steel, with enrichments of gold and silver in damascening, inlaying and niello; combinations of these methods with silver; and enamels—*cloisonné* and *champlevé*. To these are added electrotype reproductions of several of the famous examples from the South Kensington Museum, in silver and copper bronze.

Our engraving on page 125 belongs to the second class. It is the latest work of the celebrated artist M. Moril Ladeuil, and in the opinion of compe-

tent judges, as a specimen of artistic metal-work of the highest class, it has never been surpassed either in conception of design or in delicacy of manipulation.

The diameter of the POMPEIAN TOILETTE—as the Plaque is called—is some

Bronze Vases: Japanese Court.

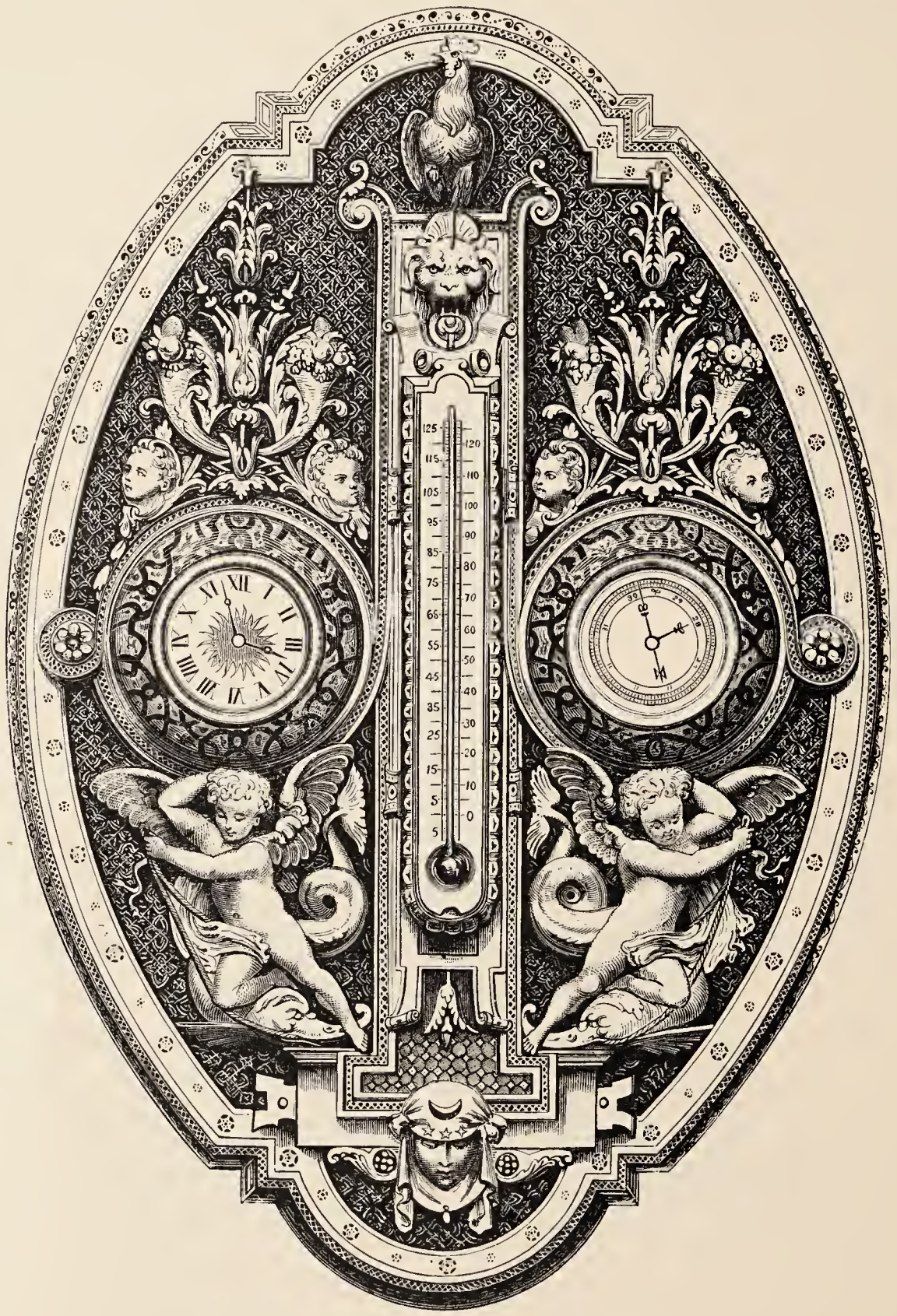
twenty inches. The centre is oxidized silver; the rim is of steel of two colors, enriched with gold damascening and *repoussé*-work; yet it is almost impossible to believe that the scene which gives the name to the plaque also has been hammered out by the *repoussé* process. Looking at the engraved picture, one

would say it was after some fine painting—say by Alma Tadema—and was the labor of the brush and pencil rather than the mallet and chisel. An inspection of the piece itself rather increases than diminishes the wonder. The texture of the flesh, the drapery, the plants, the effect of distance, each and all are expressed with truly marvelous fidelity to nature; in brief, the tecnique is perfect. Looked at as an artistic conception, the work is not less remarkable. Here is a Pompeian lady, fresh from the bath, attended by her female slaves. The toilet is nearly completed; the necklace and armlets have been adjusted; one maiden is fastening the sandals to the anklets; another stands holding the robe shortly to be donned, and a third finishes the adornment of the hair while her mistress contemplates the effect in a mirror. The pose and expression of each one of these figures are a study, but the central figure is a marvel of grace and loveliness. Accessory to this group are the room, the furniture, the ornaments, the flowers, and the recess beyond. All these details it will be observed have been carefully studied and combined to give a most harmonious whole. Except in the other works exhibited by the MESSRS. ELKINGTON, there is no metal-work of a like description in the Exhibition comparable with this fine plaque.

On page 127 we give an illustration of another of the uses to which the production of the ROYAL SCHOOL OF ART NEEDLEWORK can be applied. It is an EBONY CHAIR, covered on the back and seat with olive-green satinette, on which a spirited and well-designed vine pattern has been embroidered. The plant is a convolvulus, the flowers worked in blue, and the leaves in the different shades of brown and green. Work of this kind is so truly feminine and can be made so thoroughly artistic, that we trust the example of our English sisters will be followed by the women in this country.

Japan, with its civilization so different from ours that it might be that of another planet, is represented at the Centennial by a display so novel and attractive as to be an unfailing source of interest to all visitors of whatever other nationality. We engrave on page 128 a group of BRONZE VASES from this section which illustrate in an excellent manner the beauties and oddities of the peculiar artistic methods of the Japanese. As metal-workers, these wonderful people surpass in certain respects their European brethren, and some of their processes are to this day inimitable.

The central piece of this group stands some four feet high. It is composed entirely of bronze, save the panels between the dragon handles, which



Majolica Clock Case: Daniells & Sons, London.

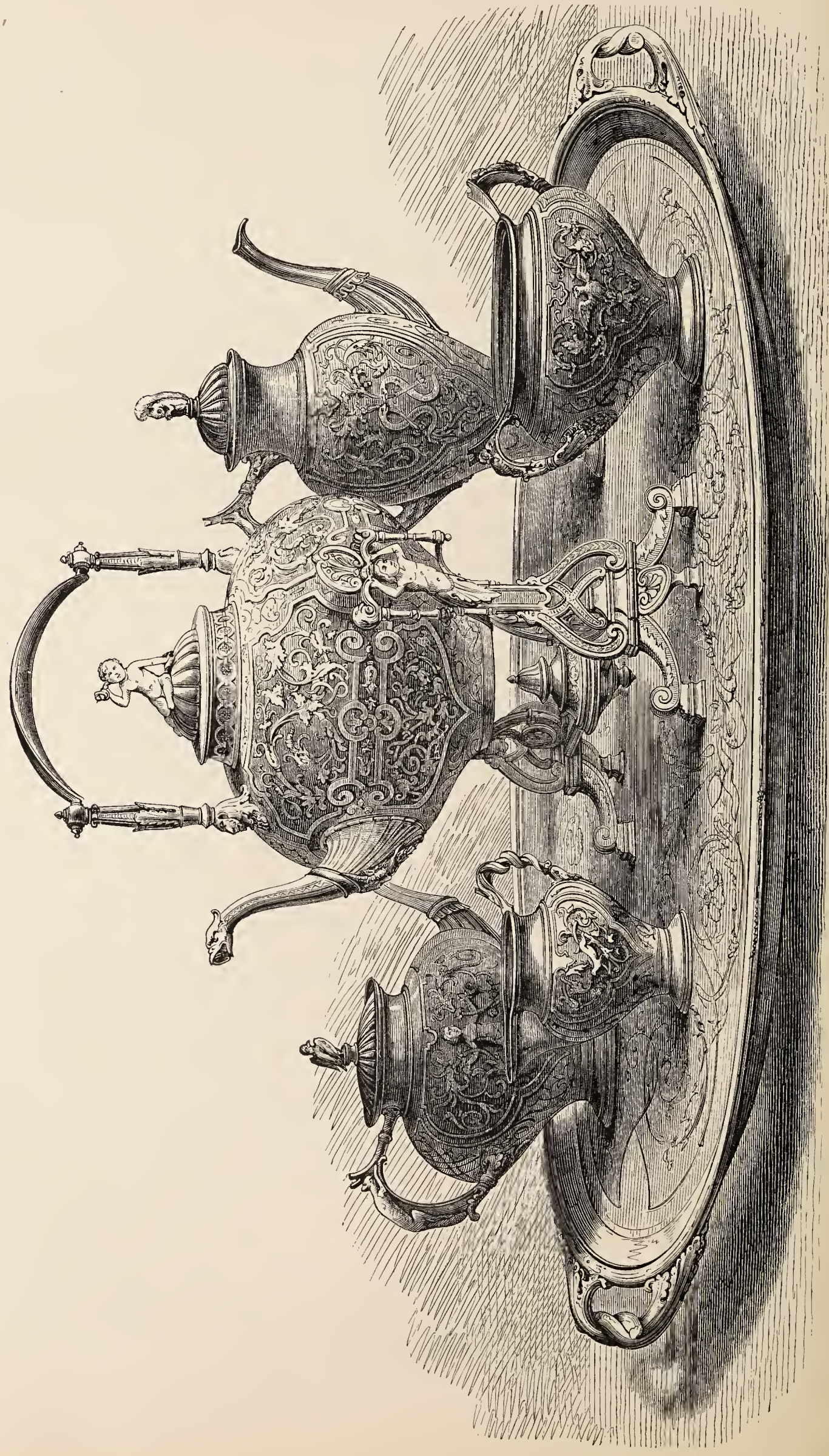
are damascened with silver and gold. The panel on this side represents a knight doing penance by standing under a cataract, and on the obverse he is seen, his sins washed away, having a quiet cup of tea with a couple of friends.

So far the European can trace a meaning in the design; but when it comes to explaining the half human monsters, the dragons, sea-serpents, and other animals, it is only possible to suppose that they may be the representations of traditional creatures such as figure in the Arabian Nights, and the like of which learned scientists assure us once walked or crawled upon the face of the earth and swam across the seas. The decoration of the smaller vases, saving the winged beasts that serve as handles, is more easily understood. The panels in these have birds and butterflies copied with wonderful fidelity and spirit after nature, and are really beautiful; and in these pieces, as in all the articles of Japanese manufacture, we see a minuteness of workmanship and finish such as no Christian people can afford the time to emulate.

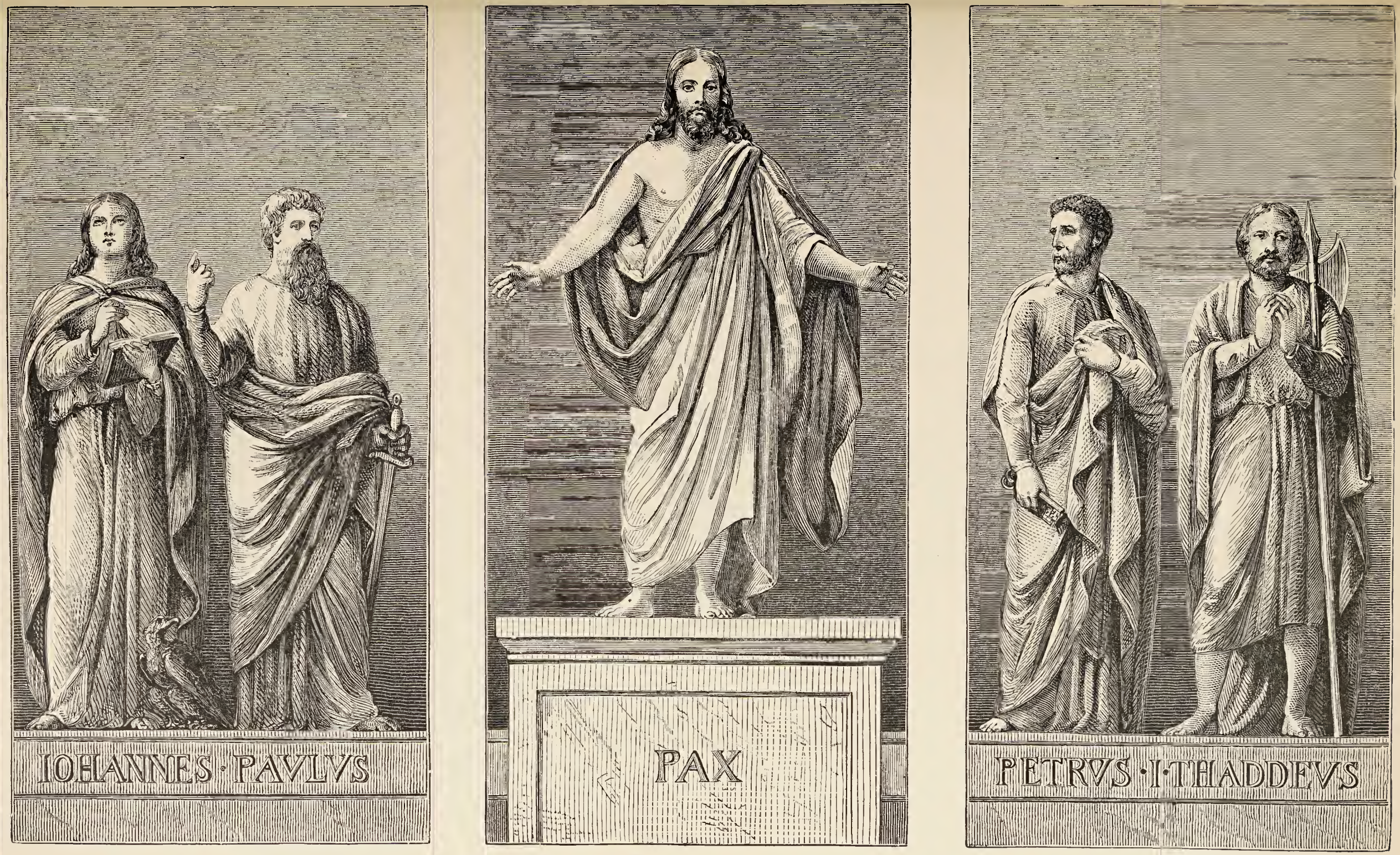
A novelty in the exhibit of the MESSRS. DANIELLS & SONS, of LONDON, is the MAJOLICA CLOCK CASE which we illustrate on page 130. The design is remarkable, spirited and attractive, the figures of the cupids and dolphins being particularly excellent. A great feature of this piece is the richness, variety and brilliancy of the enamels, for it must be remembered that the firing which articles of this character are submitted to admits the use of but a limited range of colors. On a ground-work of bright turquoise blue we find drabs, chocolates, greens, and yellows, as well as the flesh tints of the figures, which are in high relief. This is an unusual combination, and can only be produced by artists who have a superior knowledge and skill in the resources of the art of majolica painting.

Although the chief exhibit in the Danish Court is pottery, there is a small yet choice collection of artistic silverware made by CHRISTISEN, of COPENHAGEN, from which we select the TEA SERVICE that is illustrated on page 132. The beauty of this set, beyond its exceedingly graceful design and masterly execution, is the combination of gold gilding with and on the silver. All the more prominent portions of the ornamentation as well as the arabesque patterns are gold gilt, and the effect is heightened by the gold being burnished to a high state of polish, while the surface of the silver is made as dull as possible.

M. CHRISTISEN'S exhibit is a small collection, but very choice. We remember the display of silverware, *repoussé*-work and jewelry which he made at Vienna, and were not surprised that he was awarded the highest honors of that year.



Tea Service: Christisen, Copenhagen.



Tapestry, after Thorwaldsen's Christ and the Apostles.

The art of making tapestry dates back to remote antiquity. Mention is made of it in the Scriptures, and it was used by the Greeks and Romans. On the Continent, tapestry was largely used for curtains and hangings, and in England the fabric, employed in this way, was usually called Arras, on account of the superior excellence of the work done in that town. In France, the famous manufactory established by the Brothers Gobelin, became, under the protection of Louis XIV, the most celebrated of those and modern times. In England, tapestry making has been but little practiced since the time of Charles I. Probably the most celebrated examples of this costly manufacture are the series of Scripture subjects now in the Vatican, at Rome. The cartoons for these tapestries were designed by Raphael, and seven of them are now in the South Kensington Museum. Our illustration, on the preceding page, presents a group of three tapestries, representing the CHRIST and JOHN, PAUL, PETER and THADDEUS, manufactured by THOMAS TAPLING & CO., of England. They attract much attention, both on account of the excellence of the workmanship and the brilliancy and harmony of the colors employed.

We spoke at some length, a few pages back, of the celebrated establishment of the Messrs. ELKINGTON & Co., at BIRMINGHAM, England, and of the superb display of artistic metal-work made by them in the British Section of the Main Building. We now present to our readers an illustration—seen on the next page—of the *chef d'œuvre* of the collection, the magnificent HELICON VASE, which has been pronounced to be the masterpiece of the celebrated metal sculptor, M. Morel Ladeuil, the same artist, it will be remembered, who designed "The Pompeian Toilette," already described. M. Ladeuil was engaged for upwards of six years upon this piece, exhibiting it for the first time at the Vienna Exposition, where the jury pronounced it to be the most important and the most beautiful work of modern times.

The materials of which the Helicon Vase is composed are oxydized silver and steel,—the latter damascened. The piece is designed to symbolize the Apotheosis of Music and Poetry. It is in the Italian Renaissance style, a style which combines classical purity with great richness and elaboration of detail. In form, the piece may be described as an elongated plateau, the surface sloping upwards to the centre, on which rests the vase. The plateau is enriched with sculptured panels and medallions, and around the border is a series of twelve

bas-reliefs, of various shapes, illustrative of the different kinds of Music and Poetry. The interstices of the design are filled in with scrolls, masks, and trophies of various kinds, formed of beaten silver, which is thrown into relief by

The Helicon Vase: Elkington & Co.

the background of dark, richly damascened steel. The two oval medallions are occupied by bas-reliefs, the one containing a representation of Pegasus, bearing a genie typifying Inspiration, and the other, a griffin or hippograph, carrying the

genie of Imagination. The execution of these figures is particularly fine. They are modelled with great power and spirit, and the finish given to the workmanship is something marvelous. Only with the aid of a magnifying glass can its extreme delicacy be appreciated. As exples of the beauty of the panels, we may cite two, illustrative of satirical and elegaic poetry. In the first is a vailed, recumbent figure, attended by mourning genii, in a landscape saddened by cypresses and willows. In the other, satirical poetry is emblematized by a grinning satyr, who has just removed with one hand the comely mask which lately hid his features, while with the other, he is scourging a group of unsuspecting rustics, who had assembled to listen to him. Resting on the plateau, at the foot of the vase, are two half-dressed female figures, symbolizing Music and Poetry, attended by youthful genii. The modeling of these figures is simply superb, and the rendering of the skin texture of the nude portions of the body is, perhaps, the most remarkable illustration in the whole work of the technical skill of the artist. The vase itself is of ovoid form, with upraised handles gracefully continuing the curve of the sides, rises tall and stately above the figures on the plateau. It is surmounted by a charmingly-posed

Carved Panel: Luigi Frullini, of Florence, Italy.

group of two boyish genii, the upper one bearing aloft Apollo's lyre, which forms the apex of the work, while the youth at his feet tests the purity of the strain with a tuning-fork. The modeling of these figures is quite worthy of the other portions of the work. They will bear—as, indeed, will the other figures—the critical examination of artists. The dimpling flesh, the soft, rounded limbs, and all the flexions of the body are instinct with life. Here, too, the wonderful technical skill with which the metal has been treated is evident. By the aid of

Vase of Sèvres Ware.

the glass, the flesh texture is seen to have been produced by a minute stippling process, the mere contemplation of which fills the observer with wonder. Floral garlands on either side connect this group with the handles of the vase, and give strength and breadth to the composition.

On the body of the vase, on either side, is a large medallion relief, in *repoussé*, representing the nine Muses, four on one and five on the other; the former—the medallion seen in our illustration—is, perhaps, the most beautiful group in

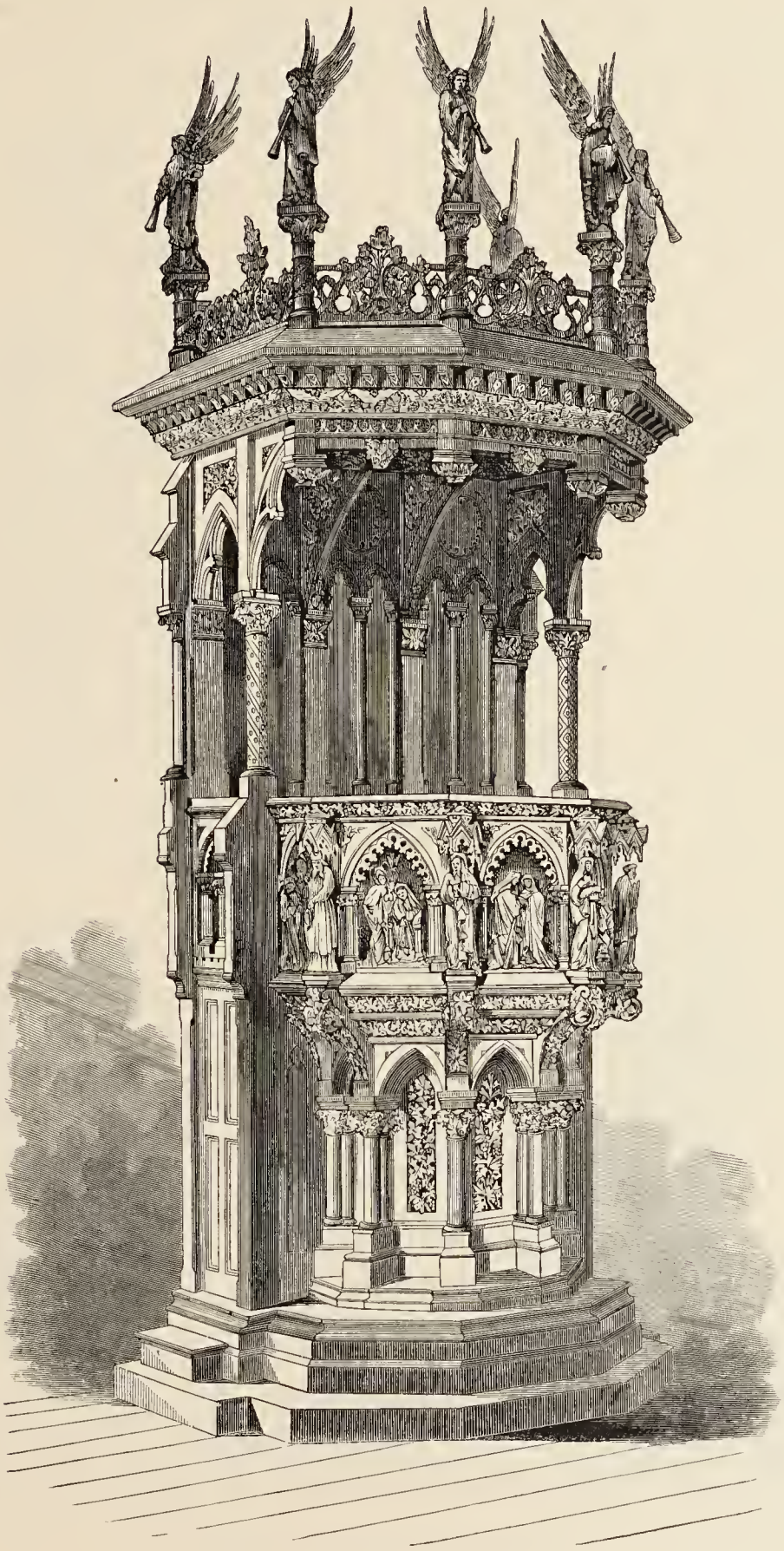
this chaste and harmonious work. At the bases of the handles are escutcheons bearing the names of illustrious poets and composers: Homer, Shakespeare, Molière and Byron, on the one side, and Handel, Haydn, Beethoven and Mozart, on the other.

The foregoing is but a bare description of this great work; no words can

The Amazon Vase: Doulton & Co.

convey an adequate idea of its fine workmanship and artistic designing. To state that the art labor alone bestowed upon it cost thirty thousand dollars in gold, is but to give the figures representing the commercial value of an expression of genius which cannot be bought, but comes to man as a gift.

The section of a CARVED PANEL, by L. FRULLINI, of Florence, that we engrave on page 136, is a piece of work worthy of the ancient wood-carvers of Italy.



Carved Pulpit: J. A. & H. Goyers, Louvain, Belgium.

The material is a soft, white wood, resembling deal—though of a much finer grain—and admirably adapted to work of this kind. The panel is about a foot

wide and eight feet high, the upper portion—not shown in the illustration—being simply a combination of the same general design seen here. This, the reader will observe, is a group of ferns and twining plants in flower, rising from an antique vase in graceful convolutions and intermingling of tendrils. Birds, animals and reptiles are disposed here and there, with a charming irregularity that makes the discovery of them a study. The carving is in very high relief, with a great deal of skilful undercutting; the figures, in some instances, being quite detached from the background. The average relief of the work is about six inches, though, in many places, this measurement is exceeded. It is difficult to decide between the animals and plants as to which Mr. Frullini shows the most skill in carving. Each is admirable in its way, and the whole piece, in the spirit and vigor of its execution, bears the stamp of a master-artist's hand.

We illustrate on page 137, a SÈVRES VASE, an example of the work of the most famous porcelain manufactory in the world. The influence of this great establishment in forming the taste of modern Europe for ceramic ware is simply incalculable. Its productions cannot rightly be judged by any of the rules applicable to minor factories; for, from the time the works came under royal patronage, Sèvres became, in the words of another, "a richly endowed school of design." The best artists of Europe furnished designs for, and painted upon, its bisquit; the most experienced chemists were employed to bring this bisquit to perfection. *Pâte tendre*, or soft porcelain, the most difficult of all pottery, was early discovered here, and the pieces manufactured of this composition include the most superb triumphs of the ceramic art. The best period—when the finest and most sumptuous pieces were made—was toward the close of the last century. When *pâte dure*, or hard porcelain, was discovered, the process of manufacturing in this composition was found to be so much easier than to make *pâte tendre*, that the latter was only occasionally practiced. Of late years, the production of the Sèvres factory has been largely *pâte dure*, and in this, the superior quality of the kaolin (porcelain clay) used, and the exceeding hardness of the glaze with which the bisquit is covered, renders the finished work incomparably the best in the world as far as mere technique goes. Yet, a curious result of these qualities is, that their excess of excellence, so to speak, leaves little opportunity for the decorator to exercise his skill upon the ware. The

glaze is so hard that the colors do not incorporate with it, but lie hard and cold upon the surface. There is no ground for fine chromatic effects, and it is

Clock and Bronze Group: The Collective Exhibit of France.

an acknowledged fact that now French artists prefer to paint their designs

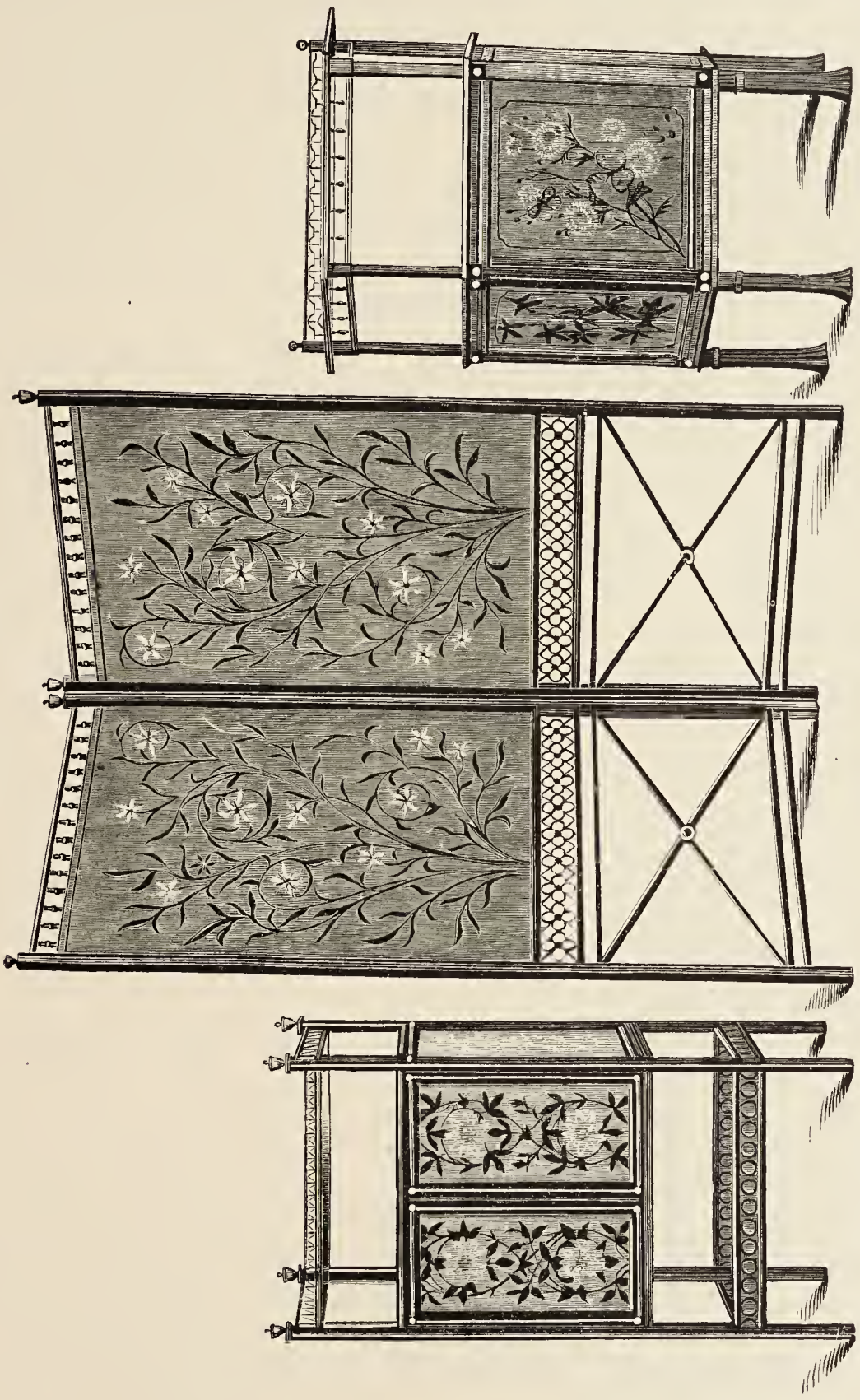
upon stoneware or other pottery rather than upon *pâte dure*. On the other hand, *pâte tendre* is of such nature that colors incorporate with the body and combine with the glaze. A *pâte tendre* vase of the best period has a richness and warmth of color that no words can fittingly describe. The vase that we illustrate is of the *pâte dure* variety.

On page 138 is an illustration of the AMAZONIAN VASE, that forms one of the principal ornaments to Horticultural Hall. This fine work of art is made of terra-cotta, an humbler material than porcelain, although scarcely inferior to it in usefulness. It is another example of the large and varied display of artistic pottery made by the Messrs. DOULTON & SON, of LAMBETH, England. The vase was designed by TINWORTH, one of the most promising young sculptors of the day, and it may be considered one of his best efforts. The relief modeling of the figures is finely executed, the drawing is exceedingly spirited, and the minor accuracies of the composition are introduced with much skill. The vase stands some five feet high, the figures in the zone varying from eight to twelve inches in stature.

GOYERS' OGIVE PULPIT, one of the features of the Belgian Court, is certainly one of the best and most artistic pieces of wood-carving in the Exhibition. This pulpit is some fifteen feet high by five feet in extreme width. It is made entirely of carved oak, with some gilding and color decoration, introduced in the ceiling of the canopy. The most elaborate carving is in the panels, the other portions of the work being kept severely plain, in order to heighten the effect. The lower row of panels—around the base—contains intricate interweavings of flowers and ferns. The next row has representations of scenes from the life of the Saviour, carved in *basso-relievo*. Between these panels are devotional figures and figures of saints, and above the canopy are angels, all carved in the round.

The FRENCH BRONZE EXHIBIT at the Centennial, though one of the least satisfactory displays made in the French Section, contains some very fine pieces. A favorite form of these bronzes is the group of mantel ornaments,—the clock and vases, or simply the clock—without which no French apartment would be considered furnished. We have selected for illustration one of the most beautiful of these latter forms, the CORNÉILÉ CLOCK—shown on page 141. In truth, the mechanical part of such an art-work as this is a matter of small importance;

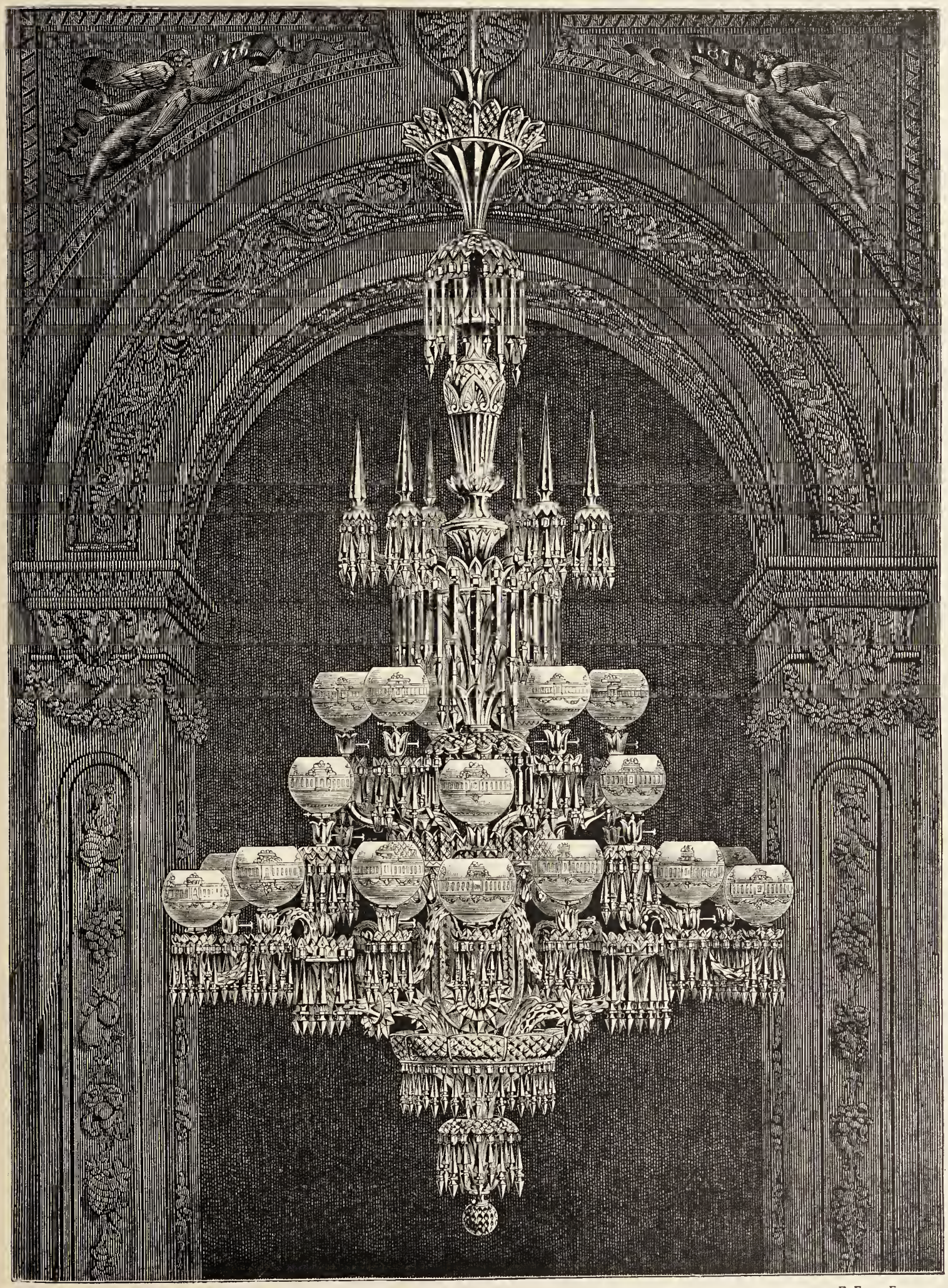
Since the mechanism of the clock is introduced into the pedestal, and the face is made a part of the ornamentation; but the value of the work is in the noble and



Screen and Commodes: Royal School of Needlework.

classical group—the mother and her children—that surmounts the pedestal. The clock is merely an unobtrusive and happy adaptation by which a purely ornamental object becomes a useful, while remaining a beautiful article.

Frame: Emile Phillipe, Paris.



A. Blanc, Del. *F. Faas, Engr.*

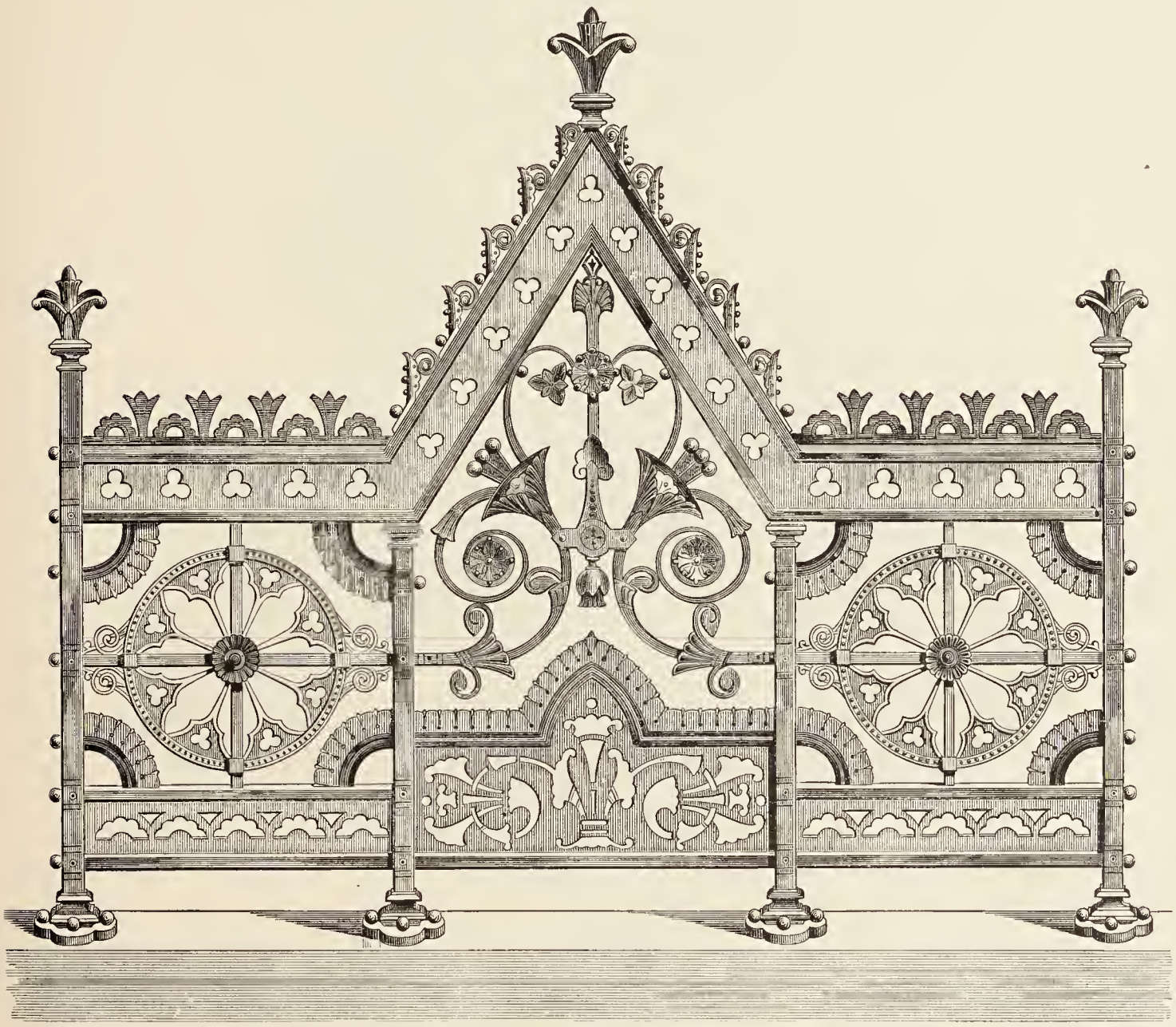
Crystal Chandelier: Mitchell, Vance & Co., New York.

Perhaps no better idea of the effectiveness with which glass can be used as a decorative agent for chandeliers was afforded in any portion of the Exhibition, than in the stalls, in the American section of the Main Building, occupied by Messrs. Mitchell, Vance & Co., of New York. The array of light, graceful forms for pendants and side-lights, the handsome clusters and the superb centre-pieces of elaborate design, all in crystal, thus displayed, made the exhibit of this firm one of the most interesting and attractive features of that portion of the building. Of course, owing to the regulations governing the Exhibition, it was not allowable to introduce gas into the tubes, which lighted, would have shown the effect most advantageously; but there were certain periods during the day when the sun-light, shining in through the upper transoms of the building, fell upon these objects and was reflected from the angles of the crystal in a shower of prismatic colors. Under these circumstances some idea could be obtained of the beauty of the designs when answering the purposes for which they are intended.

The use of crystal for decorative purposes in connection with artificial light was a most happy inspiration and cannot be too highly recommended. The material recommends itself at once as being the most suitable known for such purposes. By its brilliancy and refractive power, it rather increases than diminishes the power of illumination; its apparent lightness and transparency singularly adapt it for use in large masses, and the infinite variety of forms and colors with which it may be treated, without losing the two requisites of brilliancy and lightness, completes its value. In our opinion nothing is more effective or appropriately beautiful than a crystal chandelier.

On page 145 we illustrate one that attracted much attention in Messrs. Mitchell, Vance & Co.'s display. Its shape is that of a double pyramid. From the central zone the burners—thirty in number—rise in groups of four, circle above circle, until the highest tier is reached, above which some ornamental work is added at intervals about the central tube. The lower portion of this chandelier is formed of concentric rings, each smaller one suspended below the other; and from every portion of the whole depend transparent crystal prisms of wonderful brilliancy and lustre. Globes of ground glass soften and tone the gas-light from a garish glare, painful to the eyes, to a softened radience approaching the light of day.

At one of the entrances to their stalls Messrs. Mitchell, Vance & Co. showed a noble example of their skill as metal-workers by erecting a Brass Gate of admirable design and fine workmanship. A glance at the engraving on this page will give the reader an excellent idea of its appearance. The construction is of the simplest possible description consistent with strength. The frame of parallel bars, mortised together, is perfectly plain. In the corners are



Bronze Railing: Mitchell, Vance & Co., New York.

small rosettes giving a finish to the whole; but even these do not claim attention beside the graceful work which ornaments the central portion. The design here is a pair of double helices, the smaller ones above, with branching curves as in the tendrils of a plant. The extremities of each part end in rose-shaped figures, and in one place, the design opens out into a leaf form. These double helices are on either side of the central upright to which they are joined by

ornamented brasses. The same motive is used for the smaller ornamentation at the sides of the gate-posts and as a finish to the cross bar, in all of which minute and delicate workmanship is apparent. Every portion of the construction, except the raised and chisel-work, left dead for contrast, is highly burnished, which, of course, adds much to its beauty.

Although the section of the Main Building allotted to Russia was empty for many weeks after the Exhibition opened, yet, when her contribution to our centennial celebration did arrive, it was found in every respect worthy of the great nation whose kindly feeling and good-will toward the United States has

Punch-Bowl, Persian design M. Sassikoff, Russia.

more than once been manifested. Probably to no one national display in the whole Exhibition can the term "gorgeous" be more appropriately given than to that made by Russia. The rich stuffs, the magnificent metal-work, the jewelry, precious stones and cabinets and tables of malachite were regal and sumptuous to a degree beyond anything to be seen elsewhere. After Japan and China it is safe to say that the Russian collection attracted more sight-seers than any other. There was something of barbaric splendor in all their art-work, and an oriental richness of color in their decoration, strongly suggestive of that eastern influence which is now again asserting itself in other portions of Europe.

This characteristic was noticeable in the displays of enameling on gold and silver, to which a large portion of their court was assigned. As an example of this work we have selected for illustration an elaborate piece, a PUNCH-BOWL, with its accessories, consisting of a waiter, goblets and ladle, all in gilt metal and enamel, exhibited by the manufacturers, M. SASSIKOFF, of ST. PETERSBURG and MOSCOW.

It is hardly possible in an engraving to give an idea of the richness of a production of this kind, for it must be remembered that the intricate designs here shown in black and white are in reality colored enamels of great brilliancy, vividly contrasted and applied to a gold surface. Add to this the work noticeable in the ladle and goblets, of the chiseller and *repoussé*-worker, and it is clear that the object itself must be examined in order to thoroughly appreciate its value.

In emulation of the ancient baronial halls and palaces of Europe it is becoming fashionable in this country to decorate the apartments of our private residences with suits or pieces of armor, and the taste is not altogether a foolish one. Under certain conditions, and within due limits, armor can be used most effectively; but good pieces of truly artistic workmanship are difficult to procure, and such collections as are to be found in many of the museums abroad could not now be duplicated. For purposes of illustration, as bringing to mind the days of knighthood and chivalry and the times when pomp and pageantry were a part of war's array, when the fate of nations was decided by single combats, nothing brings the time more vividly before the present than these steel habiliments. And in another sense, as furnishing examples of the art of the metal-workers in those centuries, armor is of the highest value, for the most skilled labor of the age was expended upon its manufacture. It has always, therefore, been a matter of interest to collect and preserve these symbols of war, and now that they have become so scarce, extraordinary prices are demanded for genuine pieces. A natural sequence to this condition of affairs is that of late years the production of counterfeit articles and imitations of original examples has become a lucrative business, and only the extreme difficulty of the work has prevented its wider practice. Indeed the finer specimens of damascening and link-work cannot be reproduced by modern workmen, who, perforce, must confine themselves to making the coarser kinds. But another art,

that of electro, has recently been brought to bear in this regard, which reproduces in fac-simile, as far as appearance goes, the most elaborate examples of ancient armor, while at the same time no one possessing the sense of touch need be deceived as to its genuineness. In this way it is quite within the power of museums possessing moderate means or of individuals having houses suitable for such ornamentation to supply themselves with examples of the best periods of armor-working; and any hall, worthy of the name, can hardly have a more effective adornment than a group, say of a helmet, shield and a pair of crossed swords and gauntlets suspended from the wall.

Helmet of Henry IV.: Italian Court.

In connection with our illustrations on pages 150 and 151, the HELMET of HENRY IV. and the SHIELD of FRANCIS I. exhibited in the ITALIAN COURT, it may not be uninteresting to give a brief sketch of this now unpractised art.

That the use of armor is of very ancient date is abundantly proved by the painted tombs of Thebes and the sculptured walls of Nineveh. Every one familiar with classical history will recall the golden armor of Glaucus, the shield of Agamemnon, and the world-famous arms of Achilles; but existing examples of the accoutrements of the Greeks and of the Romans in the imperial days are of the greatest rarity.

The early Saxons, Danes, and Normans usually wore armor composed of small plates or rings stitched upon leather, which accounts for the absence of any specimens of that time, although spear-heads, shields and daggers belonging

to them are often found. The famous Bayeux Tapestry illustrates the armor of the eleventh century, with the Conqueror in a suit of mail, surrounded by warriors in scale-armor, and by archers with only a portion of their body so protected.

After the twelfth century it is easy to trace the advance made in the manufacture of armor by reference to the many sculptured brasses and monuments and illuminated manuscripts of the time. In these we see the earliest traces of the use of heraldic devices; but only two or three examples of early medieval armor, in the shape of helmets, shields and some broken gauntlets are extant. In the Tower of London, which possesses one of the most famous collections of armor in the world, are some complete suits of armor of the fifteenth century, and a helmet, said to be that of the Black Prince, is also preserved in England.

Shield of Francis I.: Italian Court

In Europe suits of plate armor came into use early in the fourteenth century and a century later artistic labor of a high order was employed in decorating it. Italy executed the most noteworthy examples; her artists vying with each other in producing intricate designs, chased and engraved upon the metal or damascened with gold and silver. Subjects also were carved in bas-relief, or embossed in arabesques by the favorite method of hammering up the reliefs, known as *repoussé*-work. Our two illustrations are notable examples of the best periods in the history of armor making. In the helmet the repoussé figures which cover the sides, the vizor and the lower portion protecting the throat are

admirably executed, and nothing could be more spirited than the winged dragon surmounting the crown. The shield of Francis I. is a more elaborate work than the other, and its broader surface has been taken advantage of for the display of more pictorial skill.

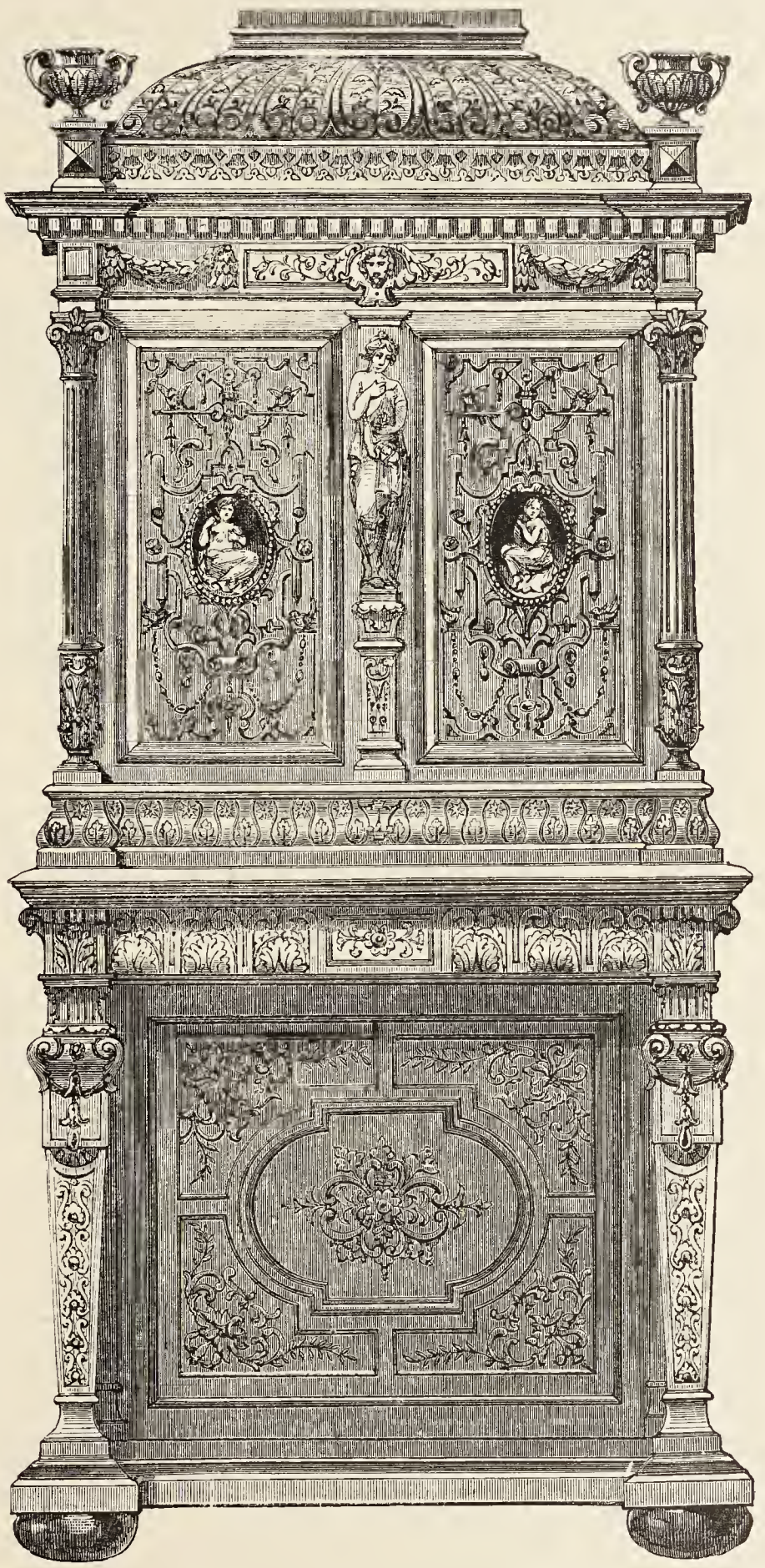
With the introduction of firearms and the new system of warfare following its introduction, body-armor fell into disuse and decorative art was exercised chiefly upon arms. Here again, as the character of the weapons changed and war assumed a grimmer aspect, art was repelled from the field and sought more peaceful subjects for expression. Now, excepting in the east, modern weapons are decorated only when they are intended for ornament and not for use.

A notable example of wood-carving is exhibited by SNYERS, RANG & Co., OF BRUSSELS—a city famous during the renaissance for its carvings in wood—is illustrated on page 153. This piece is an OAK CABINET inlaid with ebony. The general character of the design shows the traces of Italian influences in its conception, with a suggestion of French redundancy and minuteness in its treatment. As far as the execution goes, however, it is quite faultless and the figure-work is especially vigorous and dignified.

The under portion of this cabinet is composed of a single broad oak panel, the ebony inlaying forming the pattern (in low relief) shown by black lines in our engraving. The central group of flowers and the floriated designs in the corners are carved in somewhat higher relief from the oak. The pillars and the entablature are treated in the same way, but in the upper pattern of the work its inlaying is kept even with the surface. An excellent feature of the work is the frieze above the cabinet doors and the arabesque pattern in the dome-shaped top. The sides and back of the cabinet are also ornamented in the same way as the front, though with less elaborateness.

The first objects to attract the visitor to the Chinese Court in the Main Building were the endless variety of articles, principally vases, in sea-green and pale blue enamel, ranged around the eastern and northern sides of the enclosure. Monstrous and grotesque forms, birds, beasts, and reptiles, some of them copied with surprising fidelity after nature, but most of them having that peculiar treatment characteristic of Chinese work, ornamented these articles, and a closer inspection revealed delicate and marvellously minute traceries in patterns of bewildering intricacy. These articles are, without exception, examples of the

opaque *cloisonné* enameling on metal for which the Chinese have a world-wide reputation and some of the pieces here exhibited are valued at several thousand dollars. One of the most elegant of these specimens, purchased by Mr. HENRY C. GIBSON of this city, forms the subject of our illustration on page 155.



Oak Cabinet: Snyers, Rang & Co., Brussels.

This vase measures some five feet in height by three feet in breadth. Its prevailing color is sea-green, but other colors, such as blue, yellow, and red appear upon its surface, and the birds, which are marvels of workmanship, have the color of their plumage copied after nature. Our engraving excellently illustrates the exceeding delicacy of the ornamentation in this fine piece, but it is necessary to understand something of the laborious processes by which this effect was produced in order to appreciate its great value.

Enameling, in its broadest sense, is the act of fixing a vitreous substance on any surface by fusion; usually that surface is a metal. Enamels are either transparent or opaque, and are colored by metallic oxides.

The processes by which it is embedded upon or in the metal give the names *cloisonné* and *champlevé*. There are other processes of enameling, but it is needless to speak of them in this connection. In *cloisonné* enameling the pattern is formed by slender strips of metal being bent into required shape and fixed to the plate. Into the *cells* (whence the name) thus formed, the workman pours his enamel paste, and the piece is placed in the furnace for fusion. When the process is completed, the article is taken out, cooled, and the surface rubbed down and polished. In the *champlevé* process, the spaces for the enamel are dug out with a tool, the raised line of the design thus being a part of the plate itself. The vitreous matter is then introduced into these cavities, the other process being similar to those pursued in preparing the *cloisonné* enamels.

A beautiful specimen of damascening, or inlaying of one metal in another, is the DAMASCENED FRAME, manufactured by M. ZULOAGA, OF MADRID, exhibited in the Spanish court. Beside the inlaying of gold, the frame is ornamented with strips of black and white enamel, and some of the arabesques are in niello,—a name given to a kind of black enamel rubbed into the engraved lines on silver. In the general design and in the character of its ornamentation this fine work shows how entirely Spanish art retains the traditions of its oriental masters.

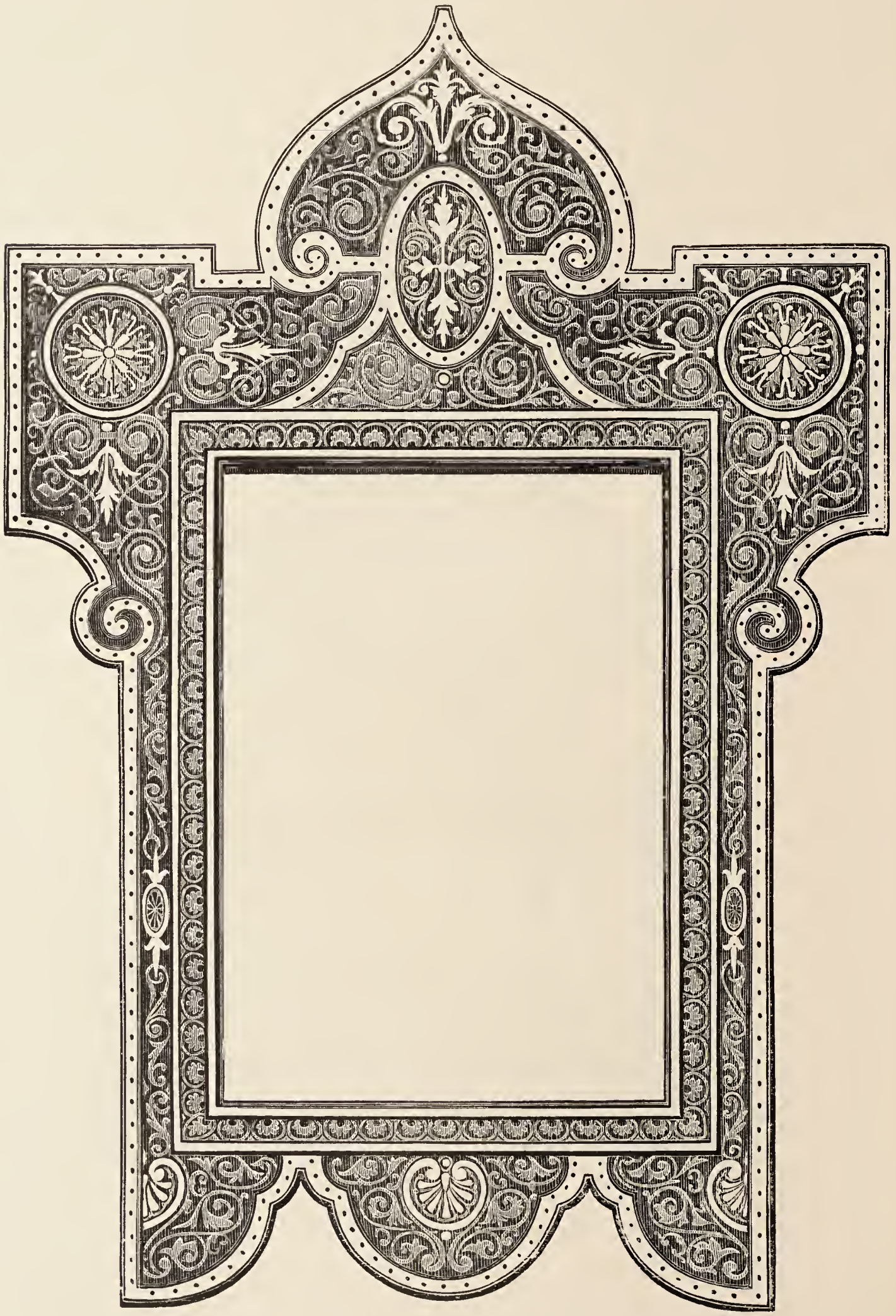
On page 157 we engrave a section of a LACE CURTAIN, exhibited by the manufacturers, MESSRS. SIMON, MAY & CO., OF NOTTINGHAM. The space left blank in our illustration is the net upon which the pattern is worked, and this black background will enable the reader to distinguish the delicacy and beauty of the design. There is something fascinating in the very name of this most delicate and costly of all textile fabrics, and the study of the processes and history of its manufacture is one of the most interesting that can be suggested. Few persons who have not studied the subject, can have any idea of the labor and skill necessary to produce such an elaborate composition as this shown in our engraving, yet no one who reads these pages can be so unappreciative as not to be struck by the beauty of the completed work.

On page 159 we engrave another beautiful object in the display of Ceramic Ware made by the MESSRS. DANIELL & SONS, OF LONDON. This a MAJOLICA VASE, modeled in one piece, upward of two feet high and nearly

three feet broad. Like every other article in the Messrs. Daniells' exhibit, this vase is a masterpiece of its kind and may be taken as a noble example of the

Vase, Cloisonné enamel: Chinese Court.

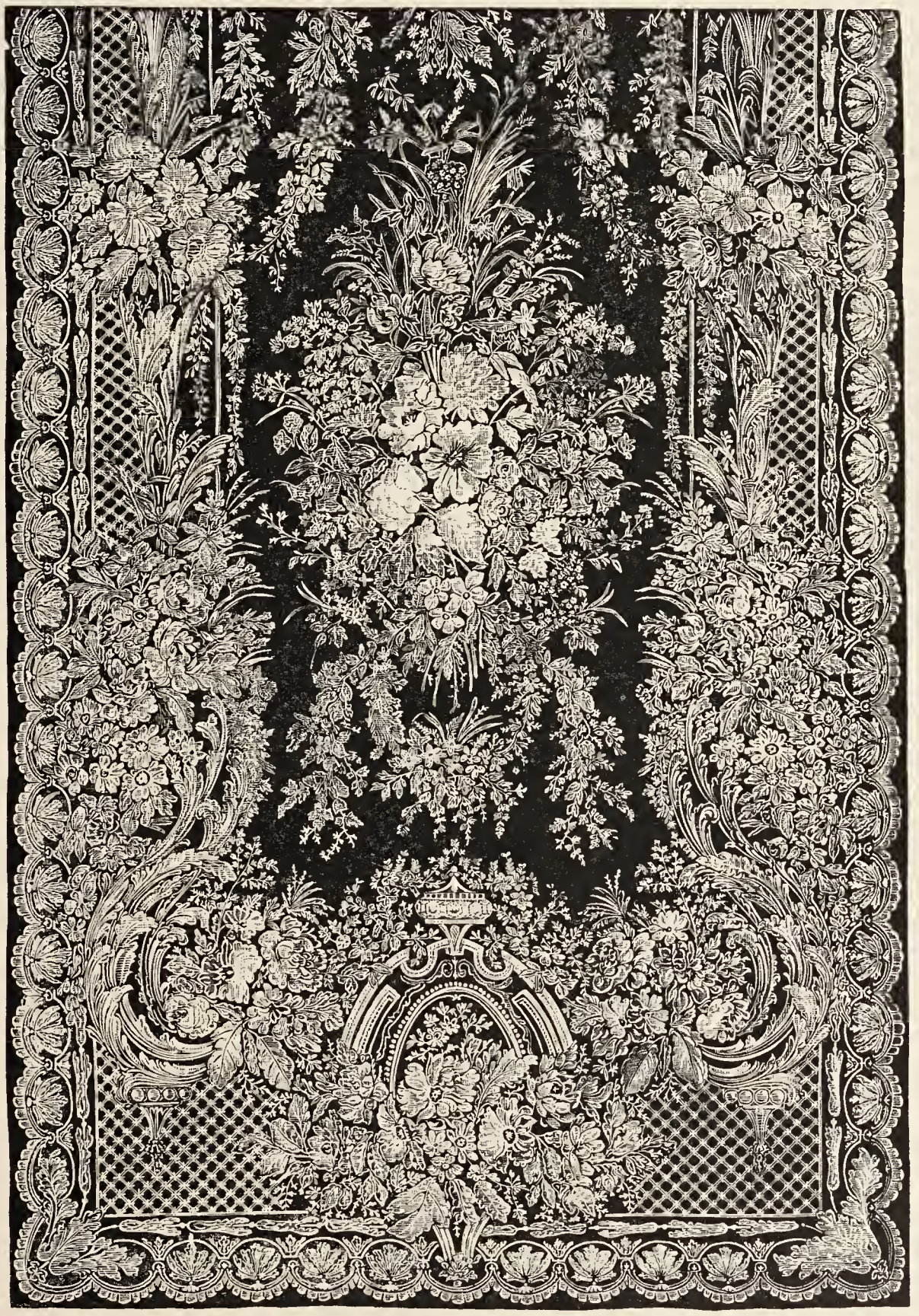
art-workmanship of the English potters. We have spoken of it as majolica, simply because that is the popular and usual name for ware of this quality; but it is not the true majolica, with the lustred stanniferous enamel, but an



Mirror Frame, Damascened Iron: Zuloaga & Son, Madrid.

enameled faience with a lustre, if any, obtained by the use of lead. During the

Exhibition this vase was given the place of honor on the stand in the nave of the Main Building and attracted attention by the richness of coloring and the



Lace Window Curtain: Simon, May & Co., Nottingham.

spirit displayed in the modelling of its figures. The color of the body of the vase and the prevailing hue of the whole piece is a clear, dark blue. The figured zones are of different colors—white, green, yellow, and chocolate brown,

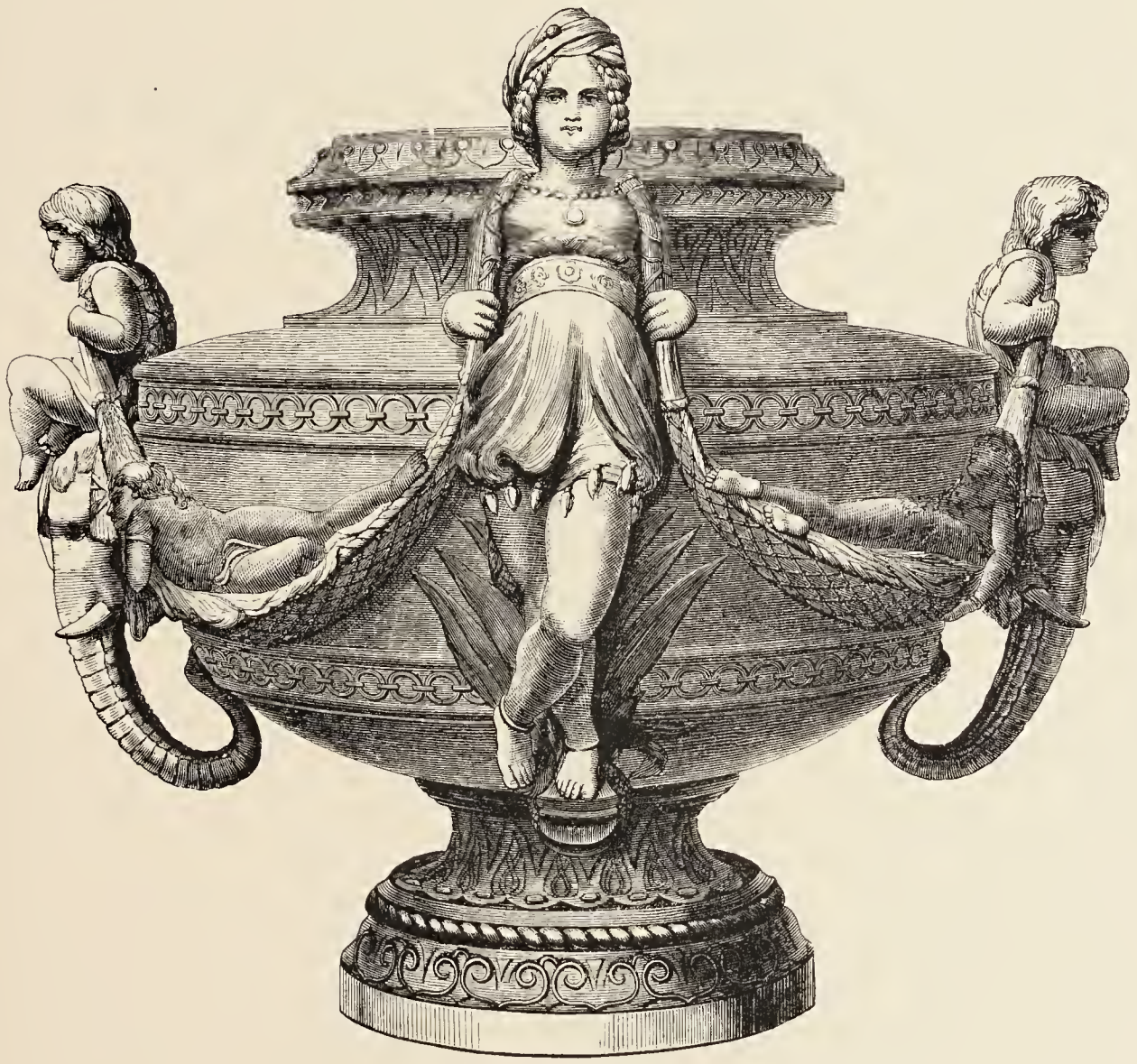
with relief ornamentation of diapered pattern in complimentary colors. At either end of the body of the vase, which is of an oval shape, are elephants' heads, the trunks wound round and under so as to form handles. Crouched on these heads are child figures—genii, partially clad—bending under the weight of hammock-ropes crossed over their shoulders. The hammocks themselves, four in number, quarter the vase at the sides, and are upheld at their other extremity by female figures twice the size of the genii. In the hammocks repose nude male and female figures, posed in the relaxed and nerveless positions peculiar to rest in one of these swinging-couches. The female figures first mentioned stand, the back toward the vase, the legs crossed, the elbows resting upon the upper surface, in attitudes of easy rest. The short skirt, gathered in at the thighs, is hung with bells and belted around the waist with an embroidered circlet. The hair is braided in heavy bands and wound about with a turban. Every feature and detail in these groups suggests the Orient, and the leaves of a tropical plant, as well as the character of the patterns in the decoration, contribute to this idea.

As the Messrs. Daniell worthily represented the Ceramic Art of England, so the MESSRS. ELKINGTON, OF BIRMINGHAM, made a display of art-work in the precious metals that was sufficient in itself to give their workmen a place in the foremost rank of artizans, the world over. Moreover, this firm did not attempt to make a general exposition of their wares, but confined themselves entirely to a collection of purely artistic and ornamental objects made especially in honor of our Centennial, or, as in the case of the Milton Shield, replicas in electro of their most famous productions.

To the former class belongs the CHESS TABLE, shown in the engravings on pages 160 and 161. In this superb work can be seen an illustration of all the more notable branches of the MESSRS. ELKINGTON's art manufacture. The shaft is richly damascened in gold and silver. The medallions at the centre contain groups of arms, trophies, etc., in *repoussé*-work. The brackets are enameled in purple and green on a cream-colored enamel ground. The female busts terminating the standards at the sides are heavily gilt, as also are the feet and masks at the base.

The top of the table, shown in section in our second illustration, is a marvel of workmanship. Each square of the board is a fine piece of enameling,

around which is a border of niello-work. Outside of this again are panels with elaborate patterns worked out in a gold tracery, and the interstices filled in with brilliant enamel colors of vivid hues. In the corners of the table-top are medallions containing heads of kings and queens and knights, executed with the finish of miniature painting.

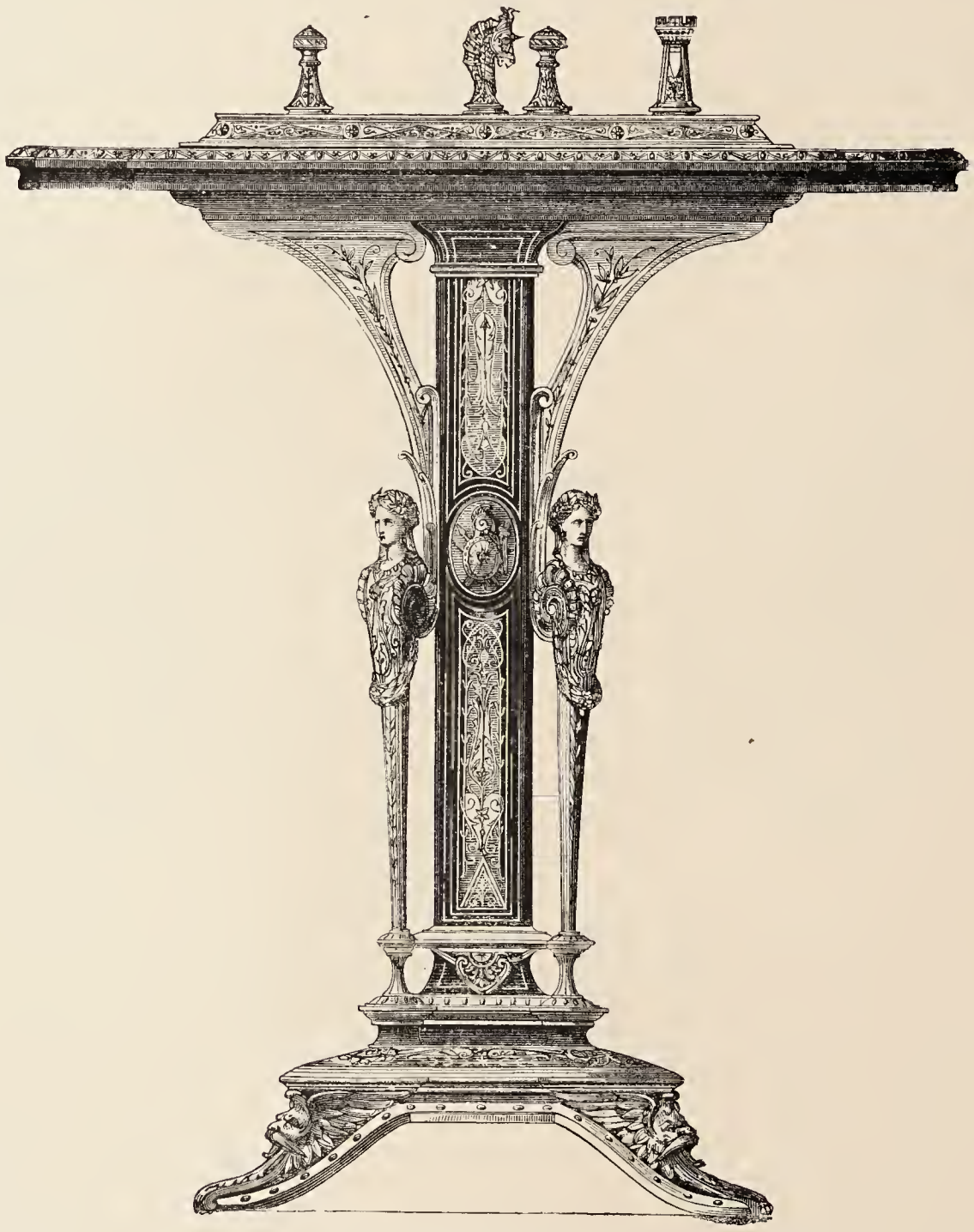


Majolica Vase: Daniell & Sons, London.

The chess-men, of silver and gold-gilt, are, in the quality of the workmanship, equal to the table, and they are after a pattern harmonizing with it in general design. The beauty of this is well shown by our engraving. It is graceful, light and perfectly proportioned. Each part harmonizes with the others, producing an effect at once pleasing and satisfying to the eye.

One of the loveliest objects in the display of Susse Frères, in the French Court, is the small silver-gilt bronze statue of Phryne, engraved on page 163.

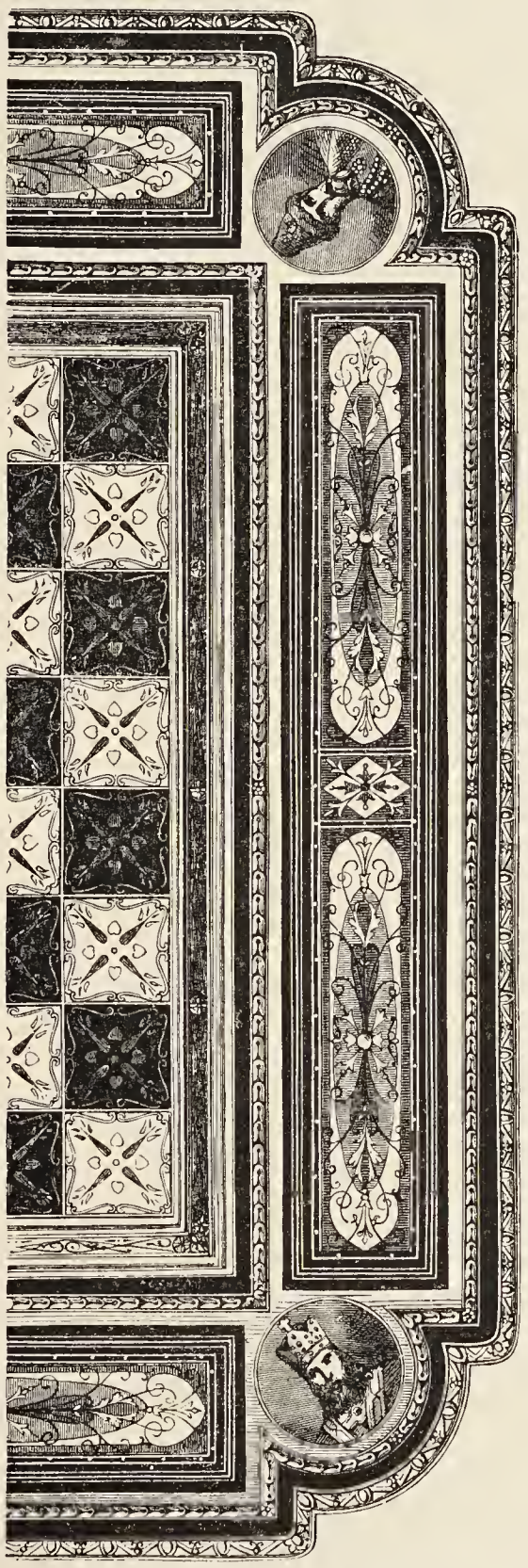
The figure is not more than eighteen inches high, but it is modeled with such perfect skill and finished in so workmanlike a manner as to claim attention. Looking at the figure—posed perhaps as when accused of atheism, Hyperides secured her liberty by revealing her charms to the gaze of the judges—we



Chess Table: Elkington & Co., London.

recall her marvelous beauty and the great men who esteemed themselves honored in her love. Praxiteles deemed her worthy to be immortalized in his statue of the Cnidian Venus, and Apelles was inspired by her beauty when painting his Venus Anadyomene. Artists in all ages have sought to embody her charms in their ideal, and her fame will go down to future ages, as it has

come to us, as one of the most beautiful of women. Living she desired to perpetuate her memory as the rebuilder of the walls of Thebes. "Alexander destroyed them, but Phryne, the courtezan, rebuilt them," would have been the inscription had not Alexander refused her offer. Thebes itself is now in ruins, but the woman's wish to have undying fame has been accomplished.



Portion of Top of Chess Table: Elkington & Co., London.

Our next illustration on page 165 is a SILVER TANKARD, exhibited by the manufacturer, M. EMILE PHILIPPE, OF PARIS. The piece is profusely decorated with conventionalized flowers and leaves raised from the surface by the *repoussé* process, which, our readers will have observed, is again becoming a favorite manner of working the precious metals in the manufacture of articles for use or ornament.

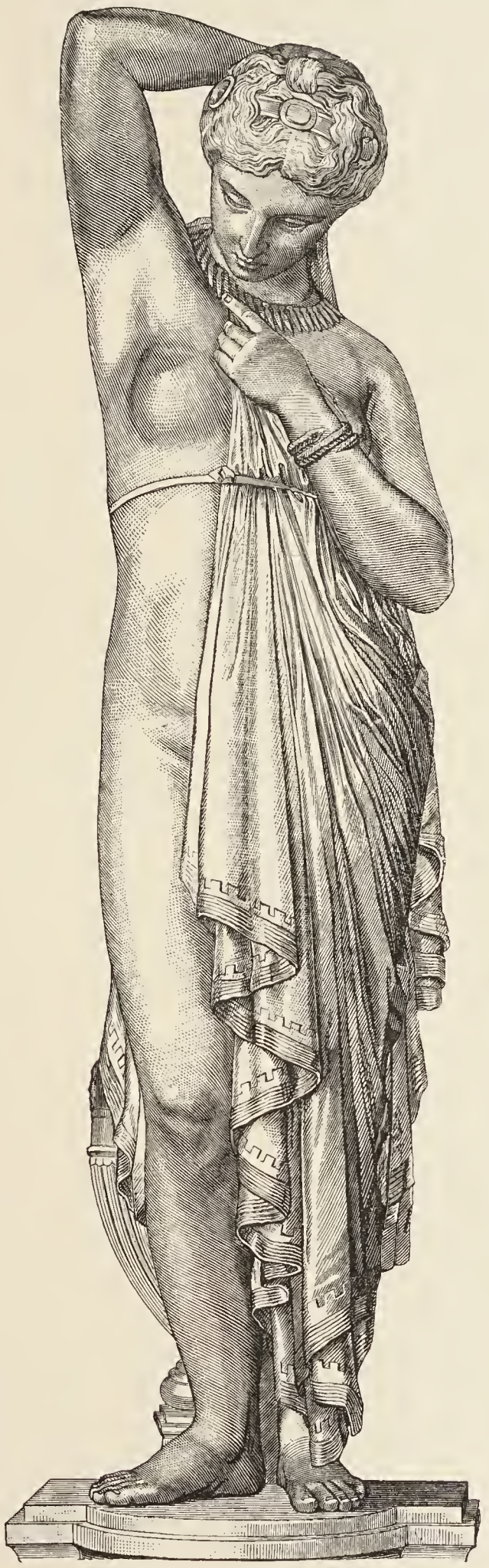
The influences which give rise to that which we call "style" in the construction of anything are among the most curious phases of civilization. In modern times France has enjoyed the privilege of ruling our taste in such matters, and it is easy to find a reason. Ever since the days of Francis the First, the great patron of art, a long line of luxurious monarchs have lent their encouragement and patronage to the decorative arts. Royal manufactories were established where the most skilled workmen, aided by the most scientific men of the day, executed the designs of the first artists in Europe. Schools of art were established and munificently endowed, where every effort was made to attain the highest degree of perfection. His reward was in being

acknowledged the instructor of Europe in the decorative arts and the arbiter of taste. Of late years, however, while France has been prostrated by revolution and wars, other nations have enjoyed profound peace, and, profiting by their position and the example set them, have devoted themselves to the cultivation of the arts and the formation of taste. The great International Exhibitions of the world are now doing more than all other influences to educate the people and to give them correct ideas. From these we may hope for better style, for it is but the expression of qualities influencing the community. A degraded taste and a vicious way of living will as surely show itself in bad style as nobility and purity will find expression in noble and pure works. Every one knows how the Renaissance, beginning in France, swept like a wave over Europe; and many who watch the times believe that we have already entered upon another and a more lasting revival. Certainly at the present moment there is an uncertainty not as to what is good as to what is best in decorative art that suggests a change of some sort. The influence of Japanese art is making itself felt in Europe and in England, as any one walking through the Main Building of the Exposition must have noticed. Even far-away Norway, just beginning the manufacture of pottery, showed dishes decorated in imitation of Japanese ware.

In domestic articles and articles of personal use the influence of style on the individual and his reciprocal influence on art are very marked. Here utility is combined with ornament, and the just proportion between the two makes a pure style. In works wrought in the precious metals, the labors of the artist and the artisan are brought very near together. As long, however, as one man designs the work and another has to make it, the highest perfection will not be attained. That summit will not be reached until the artist and the artisan are one, and then, and then only, can a truly noble style be universal.

An example of the silversmiths' work in the exhibit made by Signor E. Forte is the Silver Card-Case illustrated on page 166. It is made of small thread silver wires joined together so as to form those marvelously delicate and intricate patterns that are a peculiar beauty in filigree-work. The specimen before us is an excellent example of this method. In the centre is a ring containing a scroll branching out into fine curved tendrils as delicate as lace. Indeed filigree is to metal-work what lace is to textiles. From this centre,

and forming a circle the size of the width of the card-case inside the border, are other sheaves of wire branching out separately as in the central piece, the whole forming a rosette held together by a net-like band. Beyond this, at either end of the case, is a more elaborate pattern, having for its motive the same curving lines. About the edge a wire, as fine as a spider's thread, is wound about in such a manner as to make a border a fourth of an inch in width. Our engraving is just the size of the original and an exact copy of the pattern, so that the reader can see for himself how exquisitely fine the workmanship is.



Phryne, Bronze: Susse frères, Paris.

Italy labored under many disadvantages in attempting to make a worthy exhibition of her arts and industries at our Centennial. Chief among these were the failure of the Italian government to make any appropriation for such a purpose, and an apathy on the part of some, coupled with open hostility, manifesting itself in absolute misrepresentations on the part of others, who should have furthered the undertaking by every means in their power. Nevertheless there were half a dozen men — and among them notably one Italian — who were determined that Italy should be present among the other nations, and to their exertions is due whatever of credit can be claimed for the Italian

exhibit. That it was not representative nor worthy of the land so rich in art treasures will be admitted by every one who has visited its cities. In nearly all the departments of art-production — for which the Italians are famous — the examples were few, and, as a rule, inferior. The display of jewelry was, however, an exception, in that although by no means very large, it contained some of the choicest and most truly beautiful specimens of the goldsmith's art in the whole exhibition.

It is with pleasure we noted among the articles exhibited an indication of a revival of this art for which Italy was once so famous. In another portion of the Exhibition was to be seen a collection of antiquities, among them personal ornaments in gold and silver, manufactured by the Etruscans, Greeks, and Romans, of a quality of workmanship and an artistic feeling incomparably superior to most modern work in any land. And in looking at the displays of the Italian jewelers of to-day, that of M. Belezza, of Rome, for example, from whose collection we have selected the three Ear-rings, engraved on page 167, it was evident that a desire to profit by the lessons to be learned from these superb relics of a past perfection in the art is influencing the modern artizan. We see here that the exuberance and oriental magnificence which was blended with the purer and more refined Italo-Grecian school by the metal-workers of the fifteenth century is being separated and treated intelligently by the light of our more thorough knowledge. Indeed, it is doubtful whether such great masters in metal-work as Benvenuto Cellini had any knowledge of the traditions of the ancient schools. It would seem rather as if their treatment of the precious metals was entirely according to their fancy, unconscious of rule. But the period during which Cellini and his fellow-artists worked was an exceptional cycle, and following it came a season of gradual decay from bad to worse, extending down almost to the present time. Now, only by a patient and painstaking study of the rare and precious examples of ancient metal-work pursued in our museums and private collections, can we hope to attain to a like perfection in the art.

The English display of furniture certainly was one of the most interesting in this court. Almost every modern style, original or revived, was exhibited, and cabinet-makers vied with each other in making their stalls as attractive as possible. Thus, to show off their furniture to the best anvantage and in

an appropriate manner, many exhibitors had their stalls boarded up at the sides and ceiled over, so as to form rooms. These again were papered or

Metal Tankard: Emile Philippe, Paris.

draped, painted and carpeted, in a manner appropriate to the articles of furniture to be shown. There were bed-rooms, dining-rooms, drawing-rooms, and

libraries, with not only the furniture proper, but pictures, statuary, vases, articles of *vertu*, and bric-a-brac; in short, everything to give a homelike look and sense of occupancy to the apartment.

Under these circumstances the articles for which all these pains had been taken could be seen just as they would appear in actual use; and doubtless many orders from purchasers were secured by the judicious and carefully studied arrangements that produced these charming effects.

Among these "interiors," some of the most noticeable were those belonging to MESSRS. COLLINSON & LOCK, OF LONDON. Not only the artistic arrangement of the apartments, but the beauty and excellence of the furniture made by this celebrated firm attracted many visitors to their exhibit. The CABINET which we engrave on page 168 is one of many equally elegant articles manufactured by them, and may be regarded as representative of their refined taste and the superior quality of their work. It will be observed that in the vases, jars and other pieces of china arranged upon its shelves is an illustration of the manner we have alluded to by which the furniture is set off.

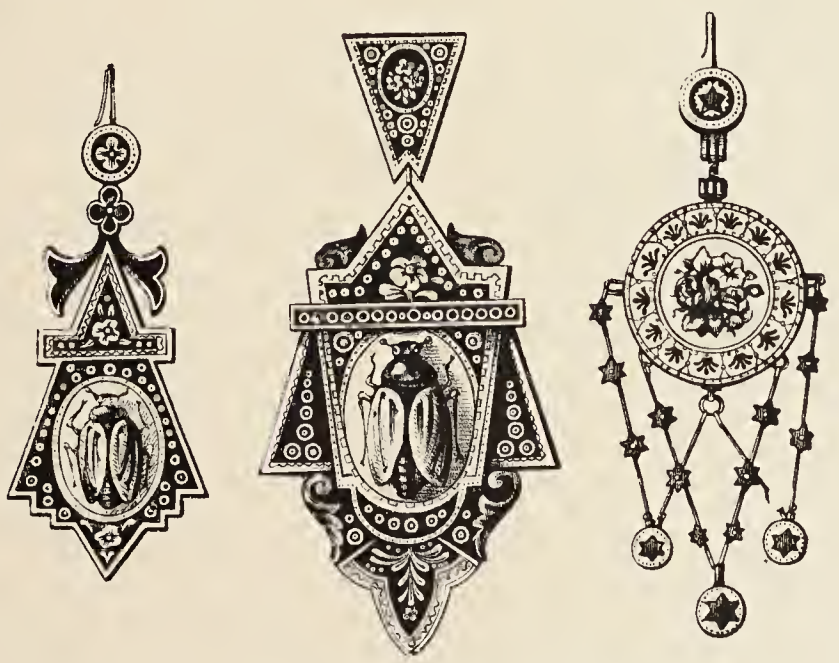
Card-Case, Filigre Silver: C. Salvo & Sons, Genoa.

This cabinet is constructed of a closely-grained wood, ebonized and highly polished. The design and carving are of the simplest description, being a return to that old and honest pattern which was driven out by the rococo, *bombé* and other showy but meretricious styles introduced from France.

With the exception of a light open-work border at the top, and the bands and fillets to the rails and posts, the wood-work of this cabinet is perfectly plain. After the cabinet-maker's part was finished it was given over to the decorator, or, more probably, the cabinet-maker was given the decorator's

finished work to put in place. Be that as it may, however, the reader will see, by looking at our engraving, that each one of the panels to the doors contains a figure of some kind, either of human beings or of beasts or birds. Furthermore, the panels at the back and top are decorated with arabesque patterns

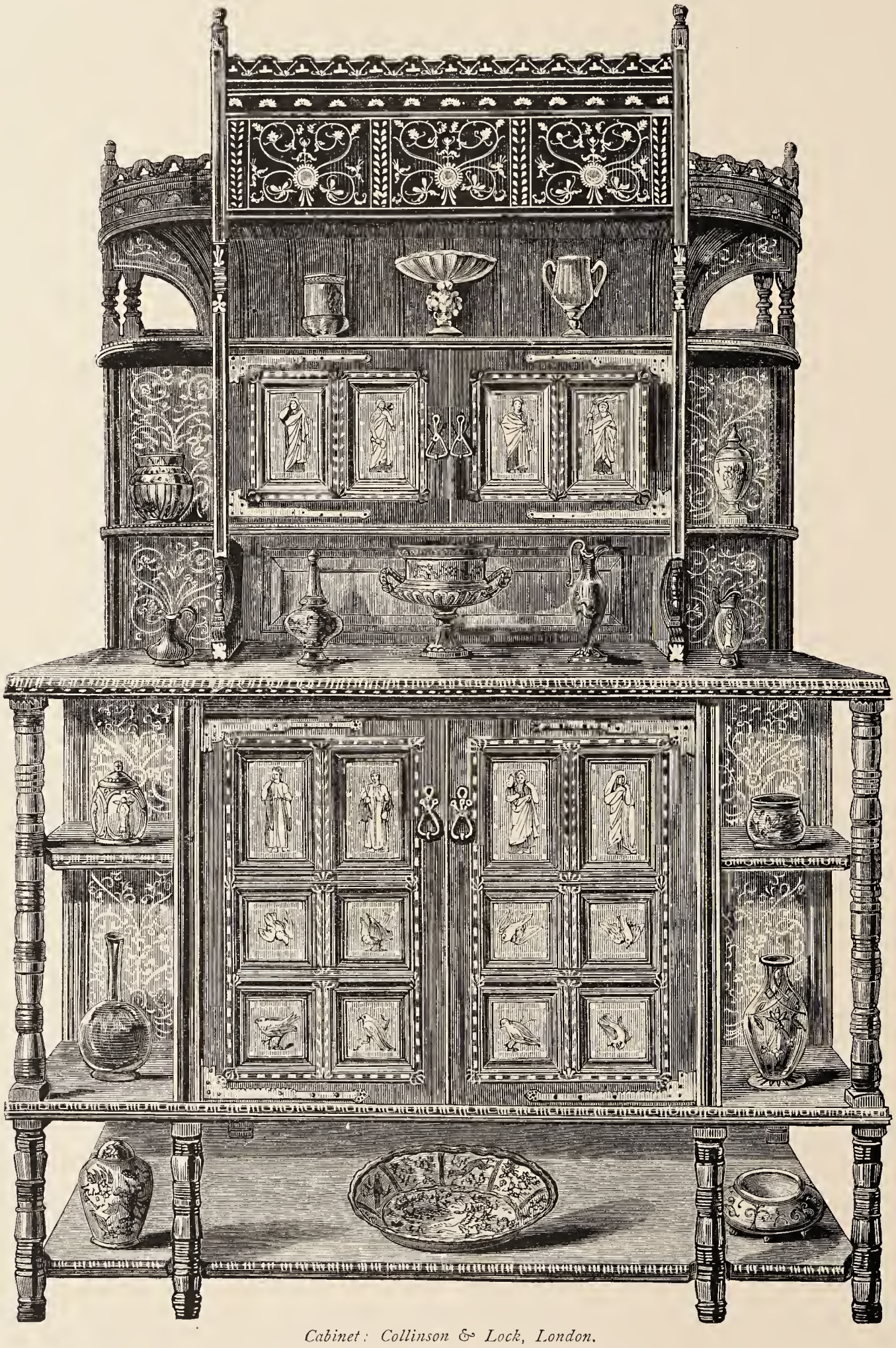
Portion of Coronet: German Court.



Ear-rings: N. A. Belezza, Rome.

of a light and graceful kind, which can be seen better in the enlarged sectional view of an end of the cabinet on page 169. All this work is done in color, painted on by hand, and its high artistic excellence adds much to the beauty of the piece.

But the chief decorative feature in the whole are the figure-panels in the doors, already mentioned. These are painted by the artist, MURRAY, who stands at the head of his profession in England for this kind of work. The



Cabinet: Collinson & Lock, London.

four figures in the doors of the upper cupboard represent the four evangelists; those below, others eminent in sacred history. They are executed in a free,

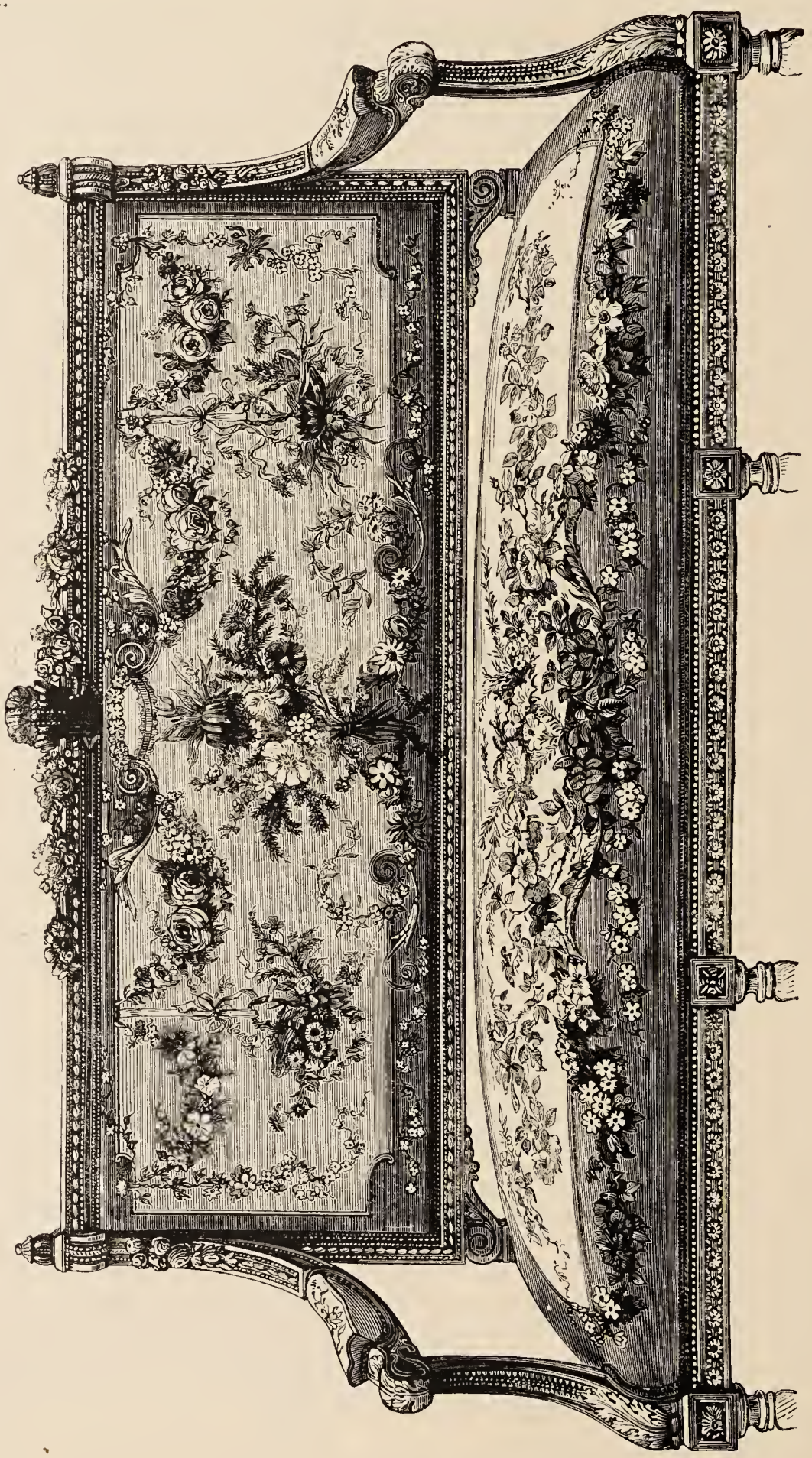
bold manner, with strong color-contrasts introduced, and each one is worthy of a separate and careful examination. The birds in the lower panels are by the same artist, and are drawn with equal spirit and vigor, but without the same care and in a hastier manner; but the color here is perhaps even richer and more effective than in the human figures. Altogether the work is an exceedingly satisfactory one, and an admirable example of a correct taste in design and ornamentation.

Portion of Cabinet: Collinson & Lock, London.

French tapestry has been famous ever since the days of Louis XIV, when Colbert, his celebrated minister, appreciating the beauty of the work produced by the brothers Gobelin, took their manufactory under his protection. The art soon after gained royal patronage, and the magnificent and costly productions of the Gobelin looms were the wonder and admiration of the world. In after years other factories were started in various parts of France, and the one at Beauvais, where the examples illustrated on pages 170 and 171 were manufactured, is second only to the Gobelins.

Tapestry has always been an expensive luxury, and therefore, although its manufacture can be traced back to a remote antiquity, its use has always been limited. Tapestries for curtains and wall-hangings were used by the Greeks and Romans, and we read in the Bible of a bed-covering made of painted tapestry. As a material for furniture upholstery, nothing could be more elegant than this rich textile. When it is used for this purpose, the designs are made and wrought in a manner, as seen in our illustrations, calcu-

lated to adorn and to be as much an integral part of the furniture as the carving on the frame.



Sofa with Beauvais Tapestry: French Court.

The engravings on pages 172 and 173 will be recognized by every one who visited the Japanese Court as among the most notable objects in that wonderful collection of oriental art. These vases stand about four feet in height. They are made of bronze, a favorite material with the Japanese metal-workers, who are certainly unsurpassed by any people in the world for originality of design and skill in execution. The examples before us are excellent specimens of their peculiar method. In the grotesques at the base and in the relief ornamentation on the sides we see that peculiar exaggeration and distortion of natural objects which many people prefer to the conventionalism obtaining with European

artists. Here, too, in the elaboration of minute designs on the collars and the rim and in the superbly executed handles, we see the evidence of a patient, painstaking labor such as only oriental workmen practice.

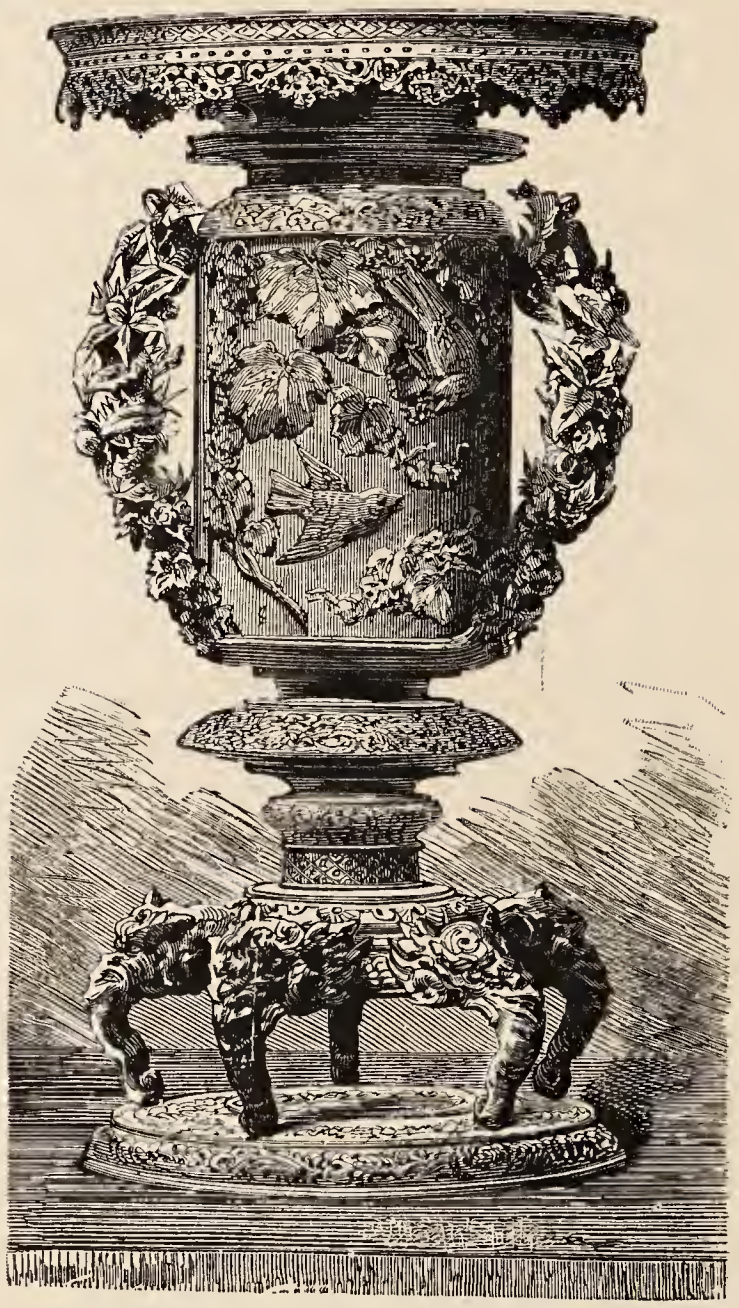
The SWINGING PITCHER, which forms the subject of our illustration on page 174, will commend itself to every one as a capital and novel idea. In this country, where the use of ice is almost universal, and where it is consumed in quantities that astonish foreigners, ice-pitchers are a necessity. Many of these are made of silver or plated ware, and are of considerable size. So large are they, in fact, that when in use their weight is a serious objection to them, an objection which this excellent invention does away with entirely. Here the pitcher is hung in a frame, which is provided with a handle by which to carry it, so that any child can swing or tip it at pleasure. The convenience of the arrangement is obvious. It will be observed that this handsome example of American ingenuity and skill in metal-plating and working, forms, with the accompanying stand, goblet and bowl, a set that will be ornamental to any sideboard or buffet.

Chair: R. Mazaroz, Paris.

Metal-work of another and entirely different character is seen in the beautiful WROUGHT-IRON GATES illustrated on page 175. This fine piece of work was one of the exhibits in the English Court, where it attracted marked attention. The design, without being too complex, is sufficiently elaborate to signify that the gates are intended for no mean use. They are evidently designed to be placed at the carriage-entrance to some park or gentleman's estate, for they are suggestive of luxury and elegance within. In all the exhibit of English wrought-iron work—and it was one of the best features of the English Court—

there were few examples which were comparable with these gates, either for artistical design or skillful workmanship.

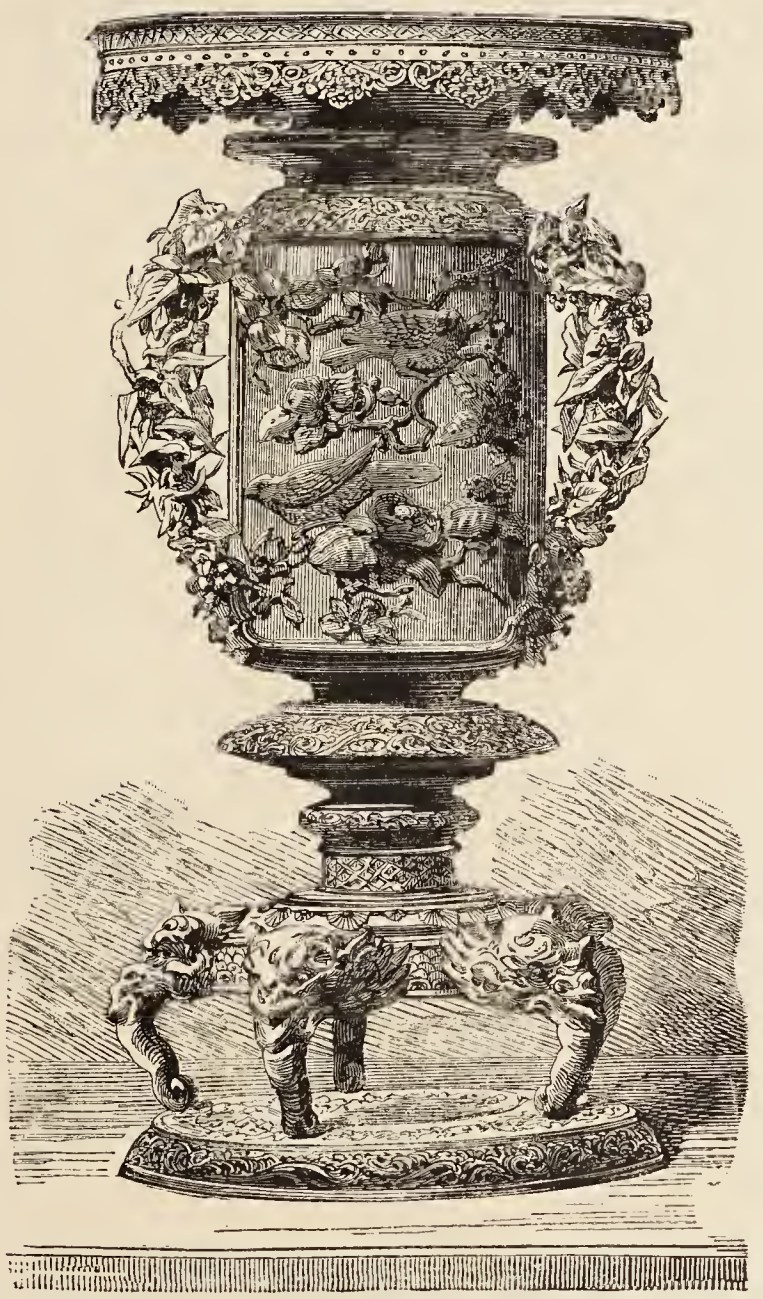
From the Netherland department we have selected for illustration, on page 176, one of the superb carpets which were there exhibited. In elaborateness of design this fine piece of work suggests the even patterns for which the Netherlands are so famous. The border is composed of flowers and garlands, disposed in a symmetrical manner. The same general design obtains in the portion of the carpet within the border, but here the arrangement is more varied. The colors are numerous and bright, but of light tints. Large medallions, with flower patterns on a much darker and richer ground, are disposed at intervals over the fabric. Some of these are joined to the stripe which separates the border from the rest of the carpet, which stripe is ornamented with a diaper pattern that is one of the prettiest features in the design.



Vase, in Bronze: Japanese Court.

The most elaborate piece of work in the exhibit of the Royal School of Art Needlework was the complete set of room-hangings designed by the well-known artist, Mr. Walter Crane, and executed by the ladies of that institution. This forms the subject of our illustration on page 177. The material of the frieze and vallance for the portiere is white sateen, on which the designs are embroidered in subdued shades of brown and green. The frieze contains four arched niches separated by columns. In the niches are four female figures emblematic of the arts—Poetry, Sculpture, Painting, and Music. Below these

is a vallance, with garlands of flowers surrounding baskets of fruits and cereals, typical of Plenty. Beneath this again, and above the portiere, is a panel on which the three Fates—Clothe, Lachesis and Atropos—are busy at their work of drawing, spinning and cutting the thread of life. The two curtains to the portiere contain full-length female figures, personifying the salutations, "Vale" and "Salve." The wall-hangings on either side are of gold twill, embroidered with elaborate designs signifying the elements. These hangings are by far the most effective parts of the whole, both for contrast of color and spirit of design, and they will be found worthy of careful examination. The pilasters which complete this remarkable set of wall-hangings are of white sateen embroidered in brown silk, with a light, graceful, foliated pattern. The borders, bands and stripes separating the several divisions of the portiere are conceived and executed with spirit and in excellent harmony with the general design.



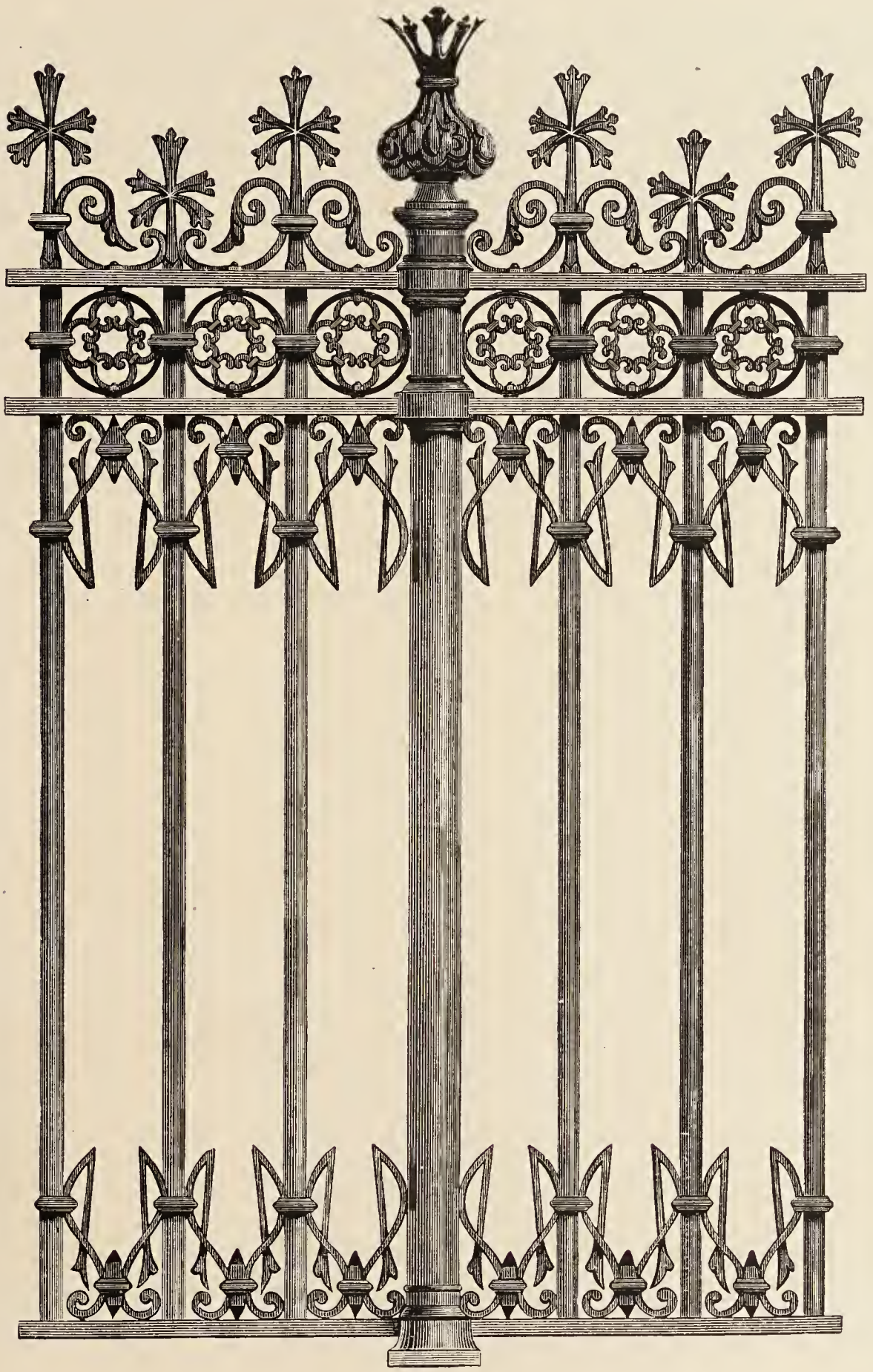
Vase, in Bronze: Japanese Court.

A noticeable feature in the display of German art pottery, from the Royal Porcelain Works at Berlin, was the number and variety of vases shown. There were specimens of the form and styles of decoration obtaining in Japan, China and Persia some centuries ago, with copies in majolica of the famous Urbino ware, the handles formed of curiously twisted and contorted snakes and grotesques. There were also tall, slender amphoræ, shaped after the manner of the vessels used by the ancient Greeks and Romans for carrying wine and oil or for preserving the ashes of the dead; while promi-

Water-Pitcher: Reed & Barton, Taunton.

nent in the collection were the Victoria vases with their dragon-handles and gracefully curved outline, in a shape which seems to be a favorite one at this

time. Of these latter, the most noticeable was the huge Victoria vase *par*



Portion of Wrought-Iron Gate: Barnard, Bishop & Barnard.

excellence, which occupied the place of honor, as the central and chief object of the display. This vase forms the subject of our illustration on page 178.

It stood about five feet high, and was undoubtedly one of the most magnificent specimens of porcelain in the whole Exhibition. It was not, however, as many were led to suppose, a single piece of porcelain. The bowl, the stand and the band between were separate and distinct pieces, their line of contact being concealed by gilt mouldings.

Carpet: Netherlands Court.

The body-color of this vase is deep blue of surpassing richness and brilliancy. The handles and many of the decorative designs were in gilt. The central medallion contains a remarkably creditable painting after Guido René's "Aurora." The perfection to which the chemically prepared colors for painting on pottery have been brought in Germany is well exemplified in this vase.

That most beautiful of all textiles—lace—had a very full and complete representation at the Centennial Exhibition. All the great centres of lace manufacture were represented in the most satisfactory manner, and in many instances partially wrought

Curtain-Door: Royal School of Art Needlework.

specimens were exhibited, showing the way in which the work was executed. Our illustration on page 179 represents one of the exquisite web-like shawls

that formed a principal feature of the Belgium exhibit. It is almost impossible to realize that this fairy-like creation, with its convoluted patterns, its garlands and flowers and ferns, has been wrought, stitch by stitch and inch by inch, by patient women, following a pattern thread by thread. It is no wonder these marvelous productions of the lace-makers are esteemed by women as among the greatest treasures of the wardrobe.

Aurora Vase: Royal Porcelain Manufactory, Berlin.

From far-away Australia came a contribution to our Centennial, admirable in size and selection, which illustrated to the best advantage the resources and industries of the country. In their advancement in the art-industries these enterprising colonists showed a remarkable progress. Our illustrations on page 180 show two pieces of metal-work as graceful in design and execution as anything of a like nature sent by the mother-country. They are a goblet and covered bowl made of ostrich eggs mounted in silver. In

the accessory ornaments to either piece, the subjects are Australian. In one we have the ostrich, and in the other the kangaroo; while in both the graceful tree-fern is most happily introduced.

The illustration on page 181 represents a section of a lace curtain, one of the examples of lace manufacture in Switzerland, shown in the attractive display made by that industrious little republic in the Swiss Court in the Main Building.

Lace Shawl—Collective Exhibit of Brussels.

This kind of lace is machine-made, and it enjoys a wide reputation for its cheapness and excellent quality. The industry of lace-making, which is of comparatively recent introduction among the Swiss people, is as yet confined to certain cantons, but it is only a question of time until it is practised in the others.

In the specimen before us, the rich-flowing lines seem in Brussels lace, though, of course, the two are not otherwise comparable.

As, in the consideration of the Industrial Art at the Exhibition, we shall

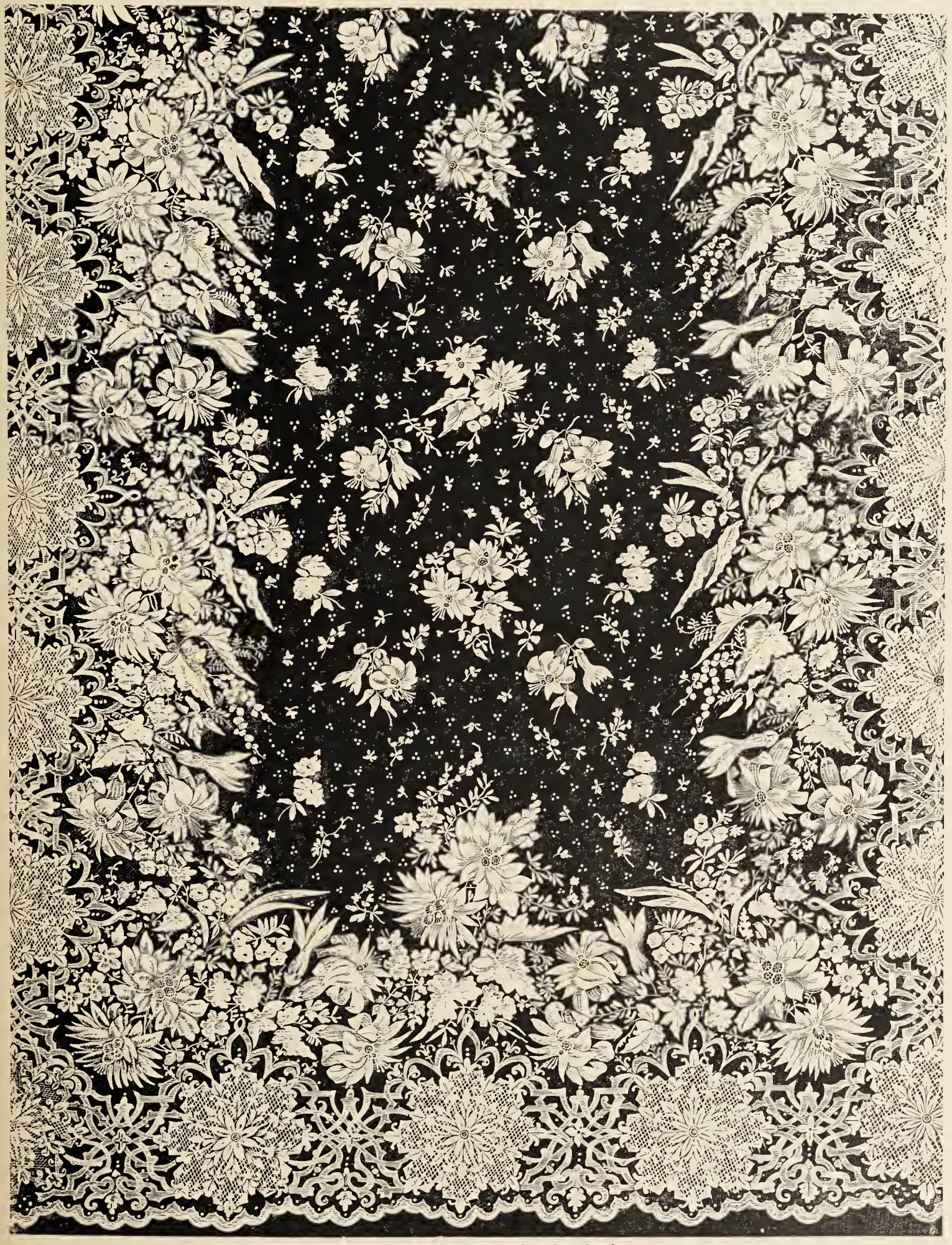
have occasion to illustrate numerous varieties of lace, it may be of interest to give a few facts in explanation of this very interesting industry.

Lace, or lacis, as it was anciently called, is made of silk, cotton or linen thread, and sometimes even of gold or silver wire. It is commonly divided into two classes—pillow and point. Pillow-lace is woven with bobbins on a cushion or pillow, but point-lace is worked with the needle on a paper or parchment pattern. All lace, whether point or pillow, may be said to consist

Silverware: Queensland Court.

of two parts—the ground and the pattern; though, strictly speaking, this is not the case, as in some kinds of lace there is really no ground at all, the figures making the pattern being joined together without any intermediate network.

The manner of making lace differs in different localities, so that the fabric is generally known by the name of the town or district where it is manufactured. But some of the names now in use are simply traditional of kinds of lace no longer manufactured. In some instances, indeed, though specimens of

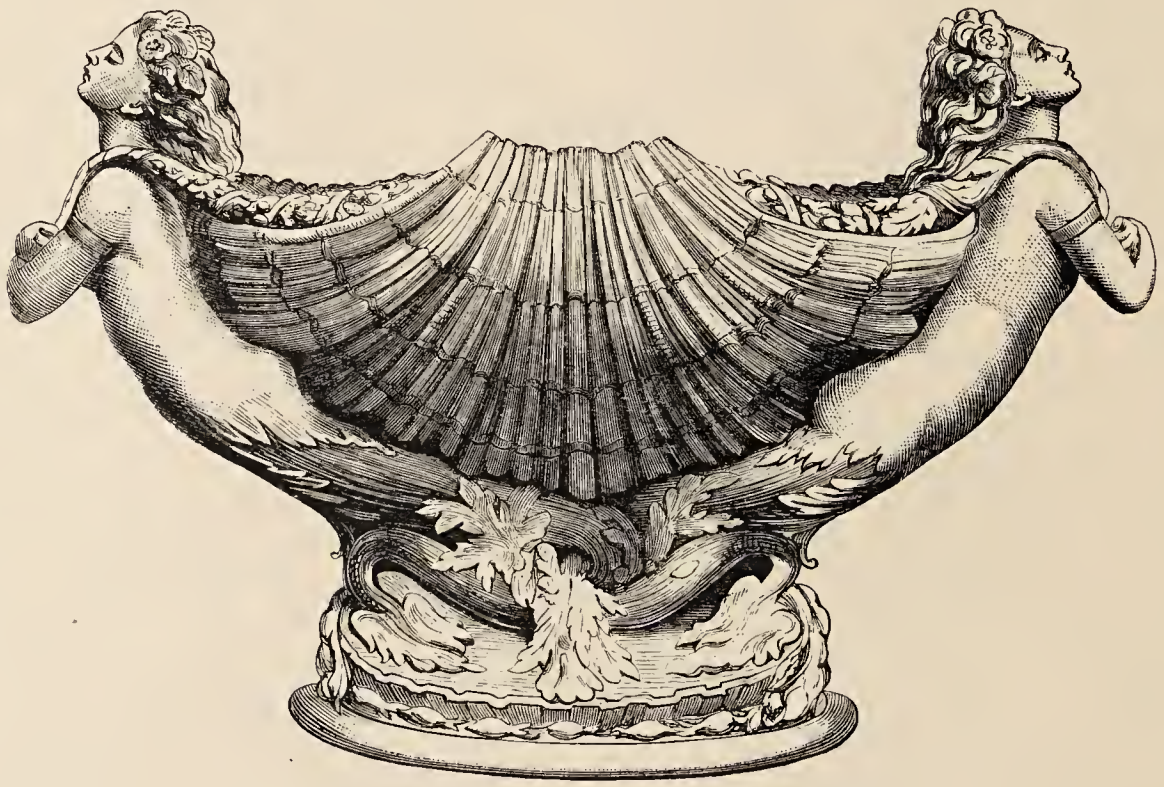


Lace Curtain: Court of Switzerland.

the work have been preserved, the manner of making it has been lost, and all attempts to re-discover it have been unsuccessful. The most costly of all lace

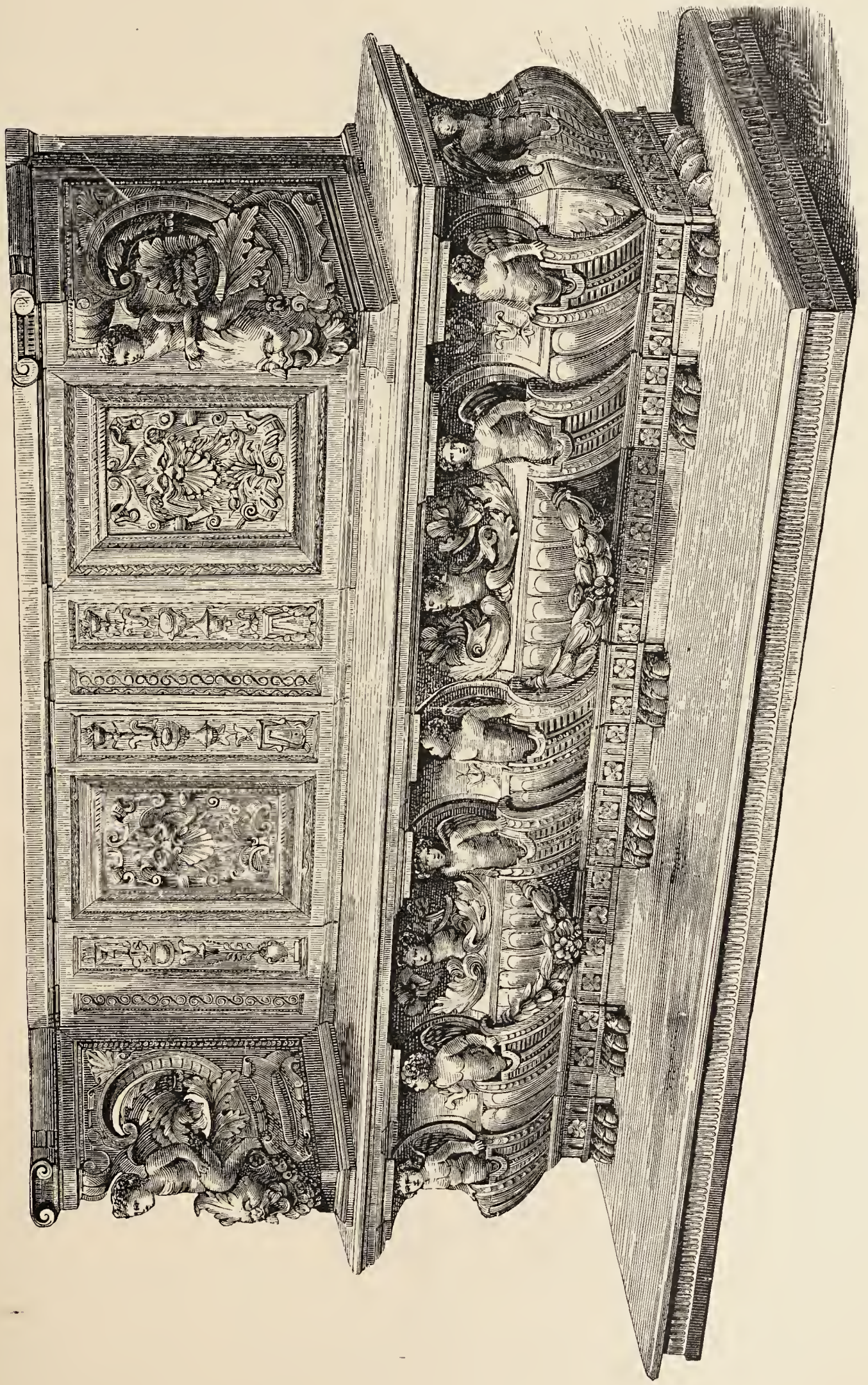
is that known as Point d'Alençon, so named after the town where Colbert, the famous minister of Louis XIV, established the lace-workers whom he brought over from Venice. It is the most exquisite and elaborate of all fabrics, being made entirely with the needle. A writer in one of the South Kensington Art Hand-books, to whom we are indebted for much of our information on this subject, describes the way in which this lace is made as follows:—

The pattern is printed off on pieces of green parchment, about ten inches long, each segment numbered in its order; the pattern is then pricked through



Majolica Flower-Bearers: Daniell & Son, London.

upon the parchment, which is next stitched to a piece of coarse linen folded double. The outline of the pattern is traced out by two threads fixed by small stitches, passed with another thread and needle through the parchment and its linen lining. When the outline is finished, the piece is given over to another worker to make the ground, which is worked backwards and forwards at right angles to the border. The flowers are next worked in; then follow the "modes" or "fillings"—the open work or fancy stitches—and other different operations. When completed, the threads which unite lace, parchment and linen together are cut by passing a razor between the folds of the linen, and there remains only the great work of uniting the different segments together. This process devolves upon the head of the fabric, and is effected by the stitch called



Carved Seat: Ferri & Bartalozzi, Florence.

"assemblage"—by us termed "fine joining." Point d'Alençon is the only lace in which horse-hair is introduced along the edge, to give firmness and consistency to the "cordonnet."

Point d'Alençon and d'Argenton are the only needle-made laces now produced in France, but the manufacture of pillow-made laces is carried on in the

Plaque of Iron: Zuloaga & Son, Madrid.

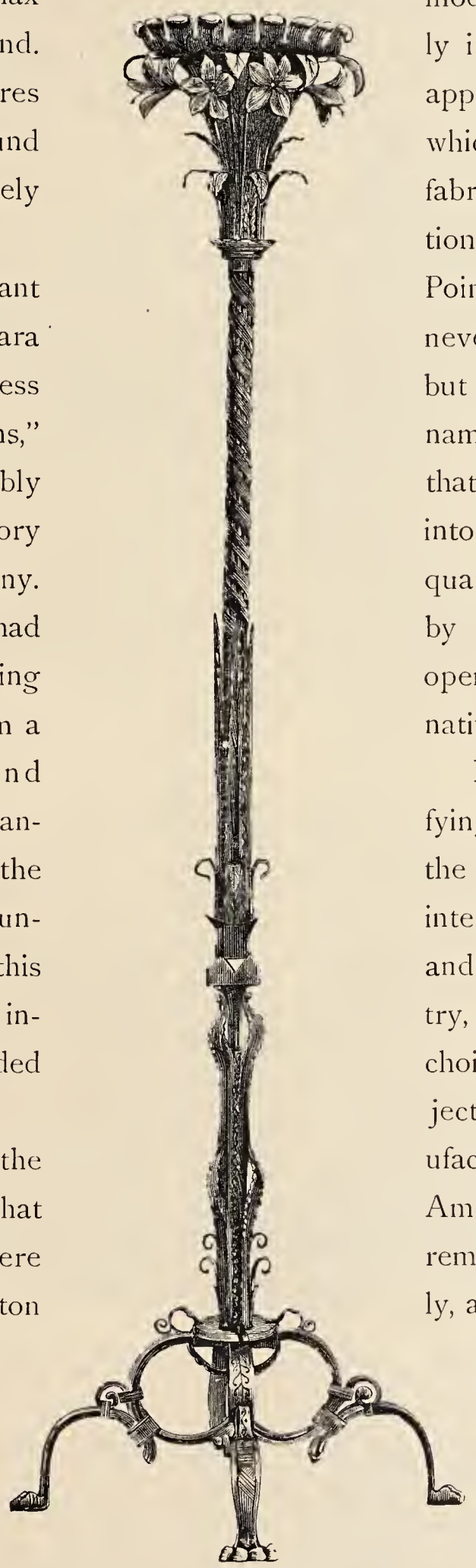
provinces of Normandy, Auvergne and Lorraine. The pillow-lace made at Valenciennes is well known, but it is not generally understood that only the city-made lace is entitled to the name of *vraie* Valenciennes. The blonde and black silk even of Chantilly used to be well known, but the fabric is no longer made.

Brussels lace was famous for its beautiful patterns and the exquisite delicacy of its workmanship. The thread for the finest pieces of this marvelous

textile is made of the flax of Brabant, spun by hand. So fine is it that it requires to be spun under ground where the air is absolutely motionless.

Speaking of Brabant reminds us of Barbara Uttman, the "benefactress of the Hartz mountains," whose name is inseparably connected with the history of lace-making in Germany. This good woman had learned the art of making lace upon a pillow from a Brabant workman, and taught it to her companions, the children of the miners in the Hartz mountains. It was from this small beginning that the industry began and extended throughout Germany.

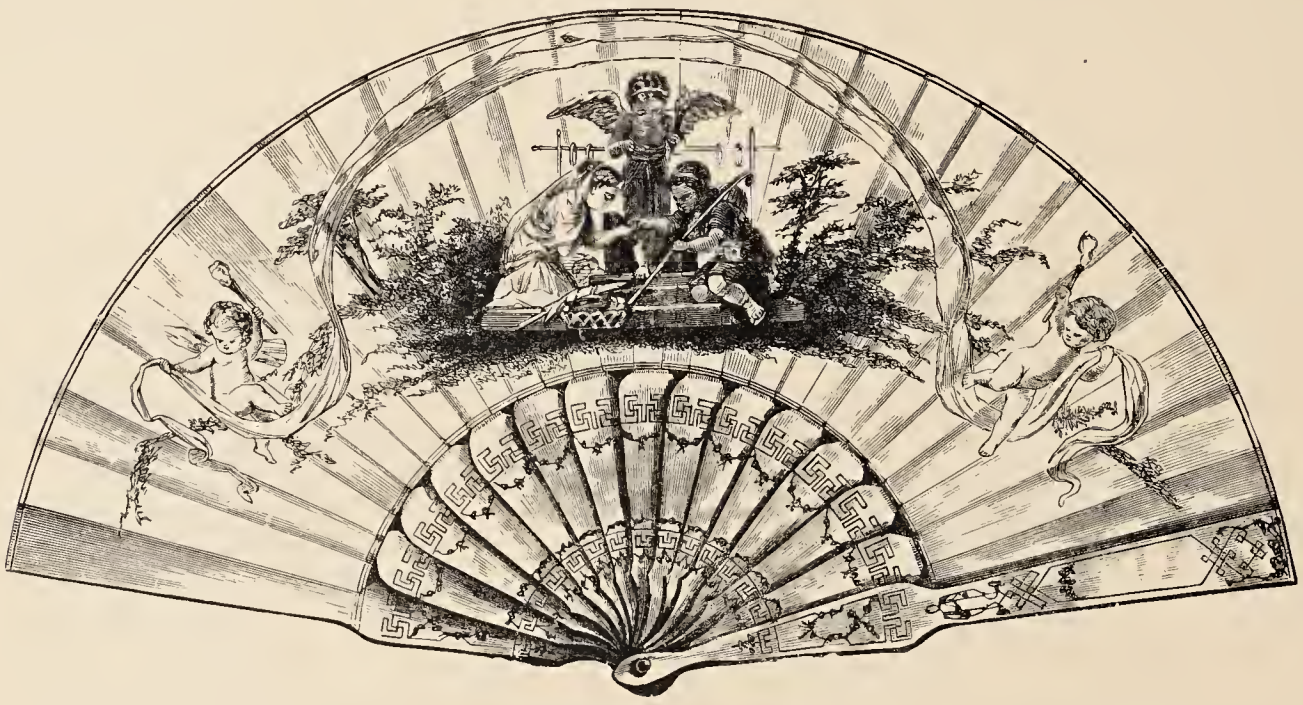
Of English lace, the most celebrated is that made, in Devonshire where the famous vale of Honiton is situated. Real Honiton lace is something like Brussels lace in appearance, although the quality is coarser; but the modern "Guipure" is greatly inferior to the beautiful applied pillow-made sprigs which gave the Honiton fabrics so great a reputation. The lace known as Point d'Angleterre was never made in England, but always in Brussels. Its name is owing to the fact that it used to be smuggled into England in immense quantities, and boldly sold by English merchants in open market as a lace of native manufacture.

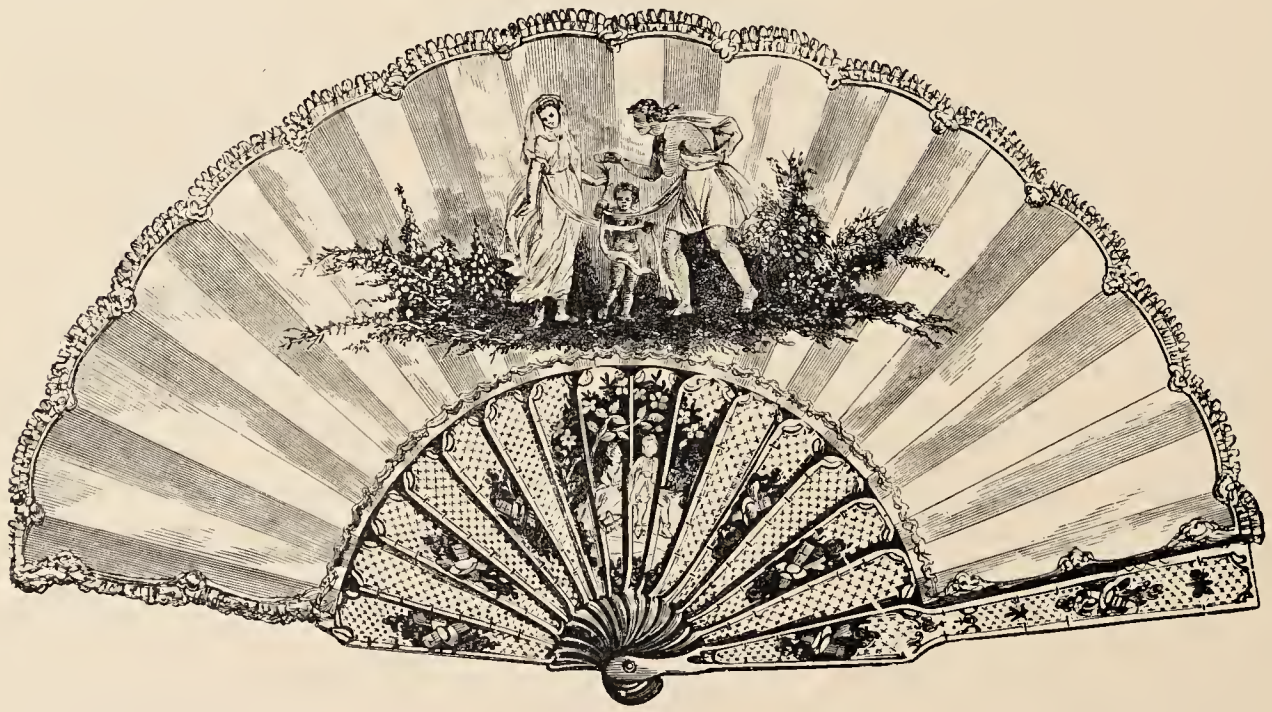


Wrought-iron Flower-Stand: Barnard & Co.

It must have been gratifying to every one visiting the Centennial, who was interested in the welfare and progress of this country, to observe how many choice and beautiful objects of art of foreign manufacture were purchased by Americans. These things remain with us permanently, and their benefit to the community in cultivating a correct taste and a higher standard of excellence in art is simply incalculable.

It was curious to note the astonishment and dismay of certain foreign exhibitors, who, claiming to have consulted the American taste in preparing their display, had sent over gaudy and otherwise inferior wares. These gentle-



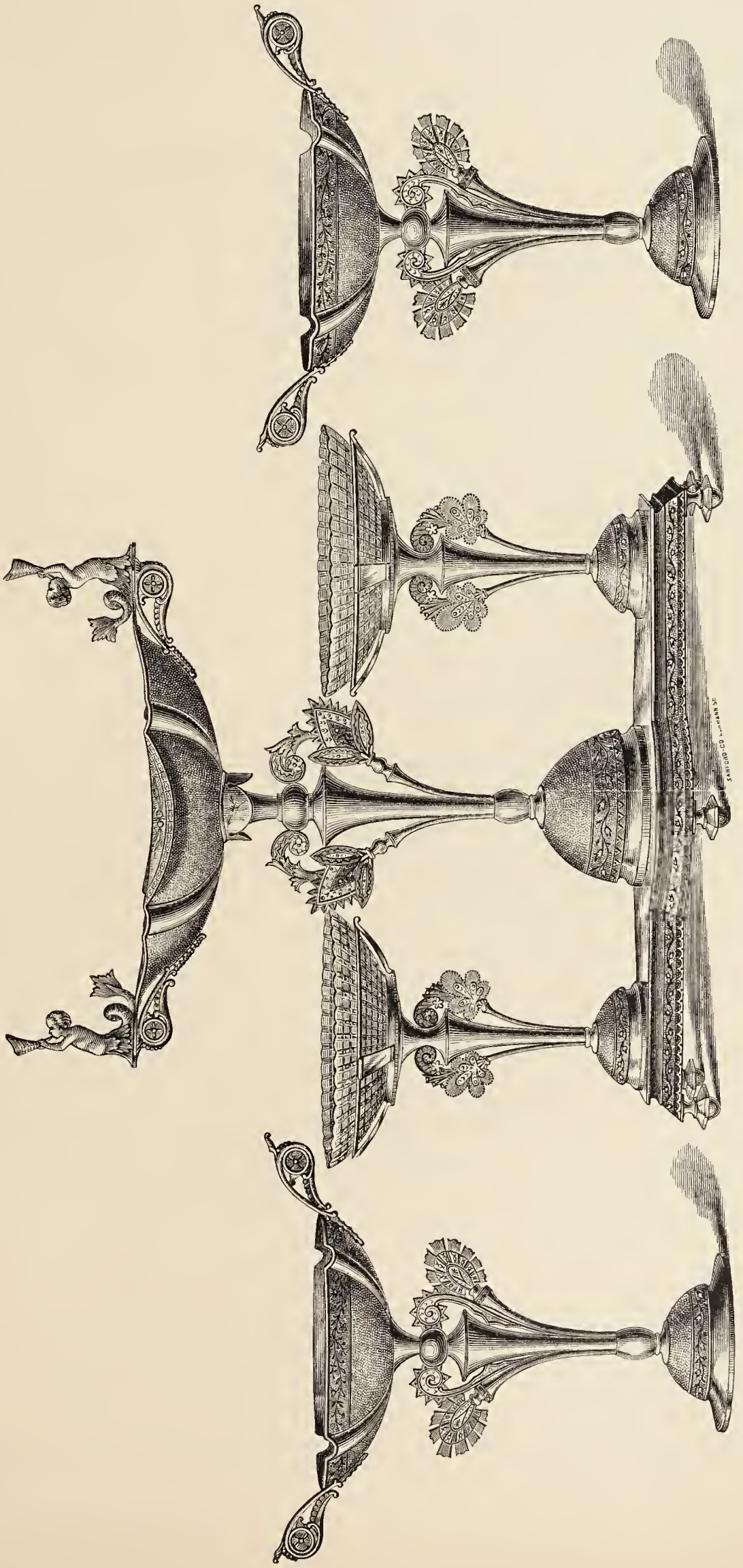


Decorated Fans: French Court.

men no doubt thought that we were sufficiently behind the art-culture of the times to be satisfied with this riff-raff of their shops; but they quickly learned their error and how much, unfortunately for their own advantage, they had misjudged the average American art-knowledge. It is but just to these gentle-

men to say that they willingly acknowledged their mistake, and asked but another like opportunity to rectify their error: On the other hand, those exhibitors who sent good work found ready and eager purchasers. Even gorgeous articles of luxury such as only princes in Europe could purchase, were sold to wealthy persons here; and it is safe to say that never did foreign dealers make such enormous profits as at the Centennial.

Even in a nation like England, with which we have had such intimate commercial relations for so long a time, there were ex-



Dessert Service: Meriden Britannia Co.

hibitors who hesitated and questioned whether it would pay them to send their best wares to this country. They were fearful that such work would not be appreciated as it deserved. One exhibitor we know of said that he never would have dreamed of sending the really splendid collection he did send if it was to have been seen only by the Americans. But his goods had always been first in the competition with European manufacturers, and he desired to show *them* that he still maintained the lead.

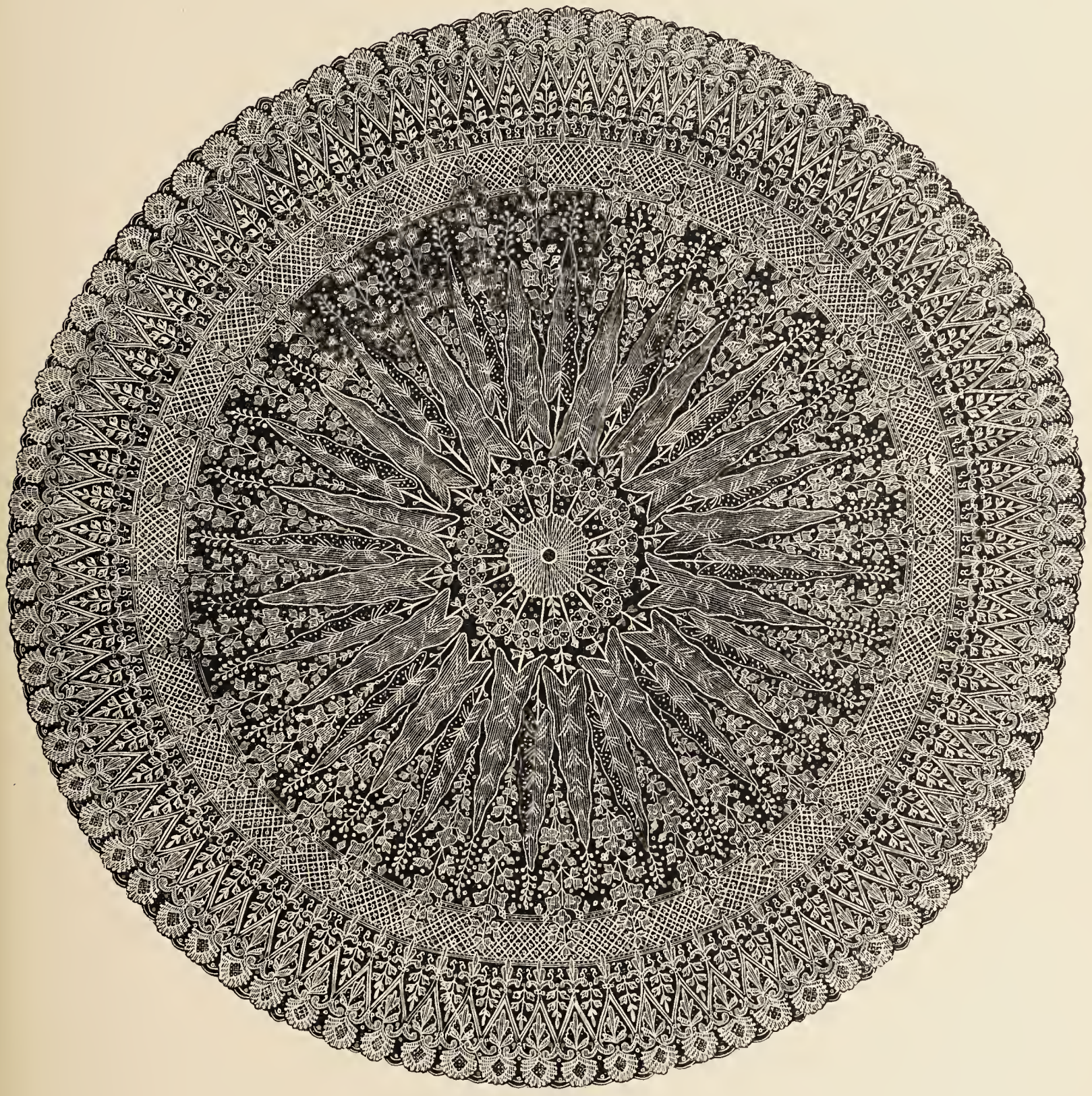
Doubtless, too, many persons sent what they did send through a feeling of national pride; but whatever the impelling motive may have been, one and

Earth Vessels: Turkish Court.

all united in saying afterward that they found here a market for their very best wares, that they found an educated, appreciative people, ready to pay liberally for works of art.

The mistake which these dealers had made was a very natural one. They argued, and with some show of reason, that because we did not produce art-work of the highest character we had no market for it. They forgot that while our artisans as a class had not the art educational facilities of their European brethren, that our wealthy classes were constantly abroad and familiar with the best examples of European work. The time is coming, however, when our art-workmen will be peers of any anywhere. All they need is the opportunity to see and study the right models. From the London Exhibition of 1851 grew

up the South Kensington Museum and the industrial-art revival in England, and we are more advanced to-day than England was then. Therefore, taking



Lace Parasol Cover—Collective Exhibit of Belgium.

our Centennial as an equivalent starting-point, we may reasonably hope for even greater results in the next twenty-five years than England achieved in the same space of time.

That English art-workmanship has made a truly wonderful advance in the

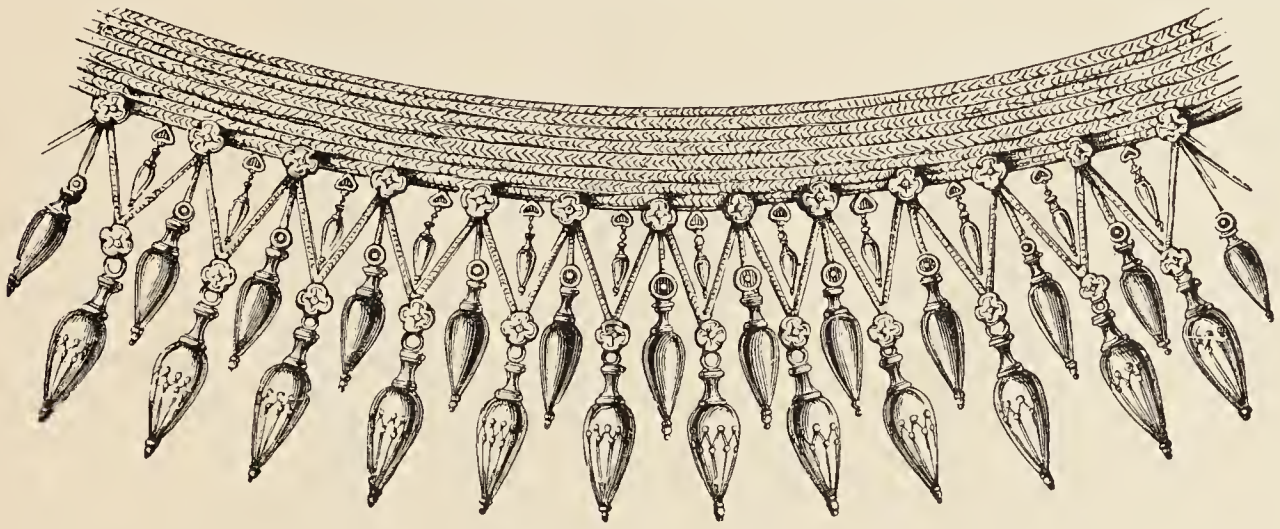
last quarter of a century was abundantly proven by the rich and varied displays in the English Court. In no other branch of industry was this more noticeable than in the ceramics. The very choice exhibit of the Messrs. Daniell alone was evidence of this. Here were to be seen the very finest productions of the potter's skill—original designs showing education in the best schools, clever reproductions of famous *fabriques*, copies of rare antiques, and examples of the latest discoveries in the art. We have already presented to our readers in

Necklace: Belleza, of Rome.

these pages illustrations of several of the most noteworthy objects in this collection, and we now add another, on page 182, of a fine Majolica Flower Vase, that during the Exhibition was given a place of honor in the aisle of the Main Building. The vase is composed of two scollop-shells, beautifully tinted within, and colored on the outside with brown, graduated up to white, as they appear in nature. At either end are two gracefully modeled mermaids, with their arms crossed over the breasts. The lower portions of the bodies are intertwined and rest upon the base of the vase, on which are sea-weed and shells. The human part of the figures is beautifully tinted of a flesh color, the

lower portion imitating in color the irridescent skin of a fish. Altogether the work is finely designed and executed, and it is a matter of congratulation that it has become the property of one of our citizens.

The superb piece of wood-carving shown on page 183 was exhibited in the Italian Court. It is a HALL SEAT, carved out of black walnut. It exhibits in a very remarkable degree the advancement of skill attained in the modern revival of an art for which Italy was at one time world-famous. Our readers will find pleasure in discovering for themselves the many and elaborate beauties of this elegant design, as the most casual glance will show how manifold they are. Yet we desire to call especial attention to the spirited attitudes and fine



Necklace: A. Castellani, Rome.

carving of the winged genii who seem to be springing, crouched, from the curved supports to the seat. The marks on the arms are also exceedingly well done, and the scroll-work in the panels should not be unobserved.

Spain has always had a great reputation for the excellency of its metal-work, and especially for delicate intricacy of its damascening. The specimen which we illustrate on page 184 is an IRON SHIELD, inlaid with silver, from the factory of ZULOAGA, AT MADRID. The oriental school in which the artist who designed this fine piece of work was educated is plainly apparent here. The grotesques, medallions and scrolls—the latter interwoven in a most bewildering way—are eminently Moorish. It would be difficult to find any more spirited or gracefully fanciful pattern than that in the central zone of this shield.

A graceful and in every way satisfactory piece of metal-work of an entirely different character is the WROUGHT-IRON FLOWER-STAND, made by BARNARD,

Bishop & Barnard, of England, which is illustrated in our engraving on page 185. The perfect simplicity of the design is its chief beauty. A light open stand supports a shaft resembling the stem of a plant, and above a group of delicate blossoms, looking like modest little "Quaker ladies," surround the basin intended to receive the flowers. This flower-stand is decidedly one of the prettiest things of the kind exhibited in the Exhibition, and it has the merit of being suitable alike for the lawn, the piazza or the drawing-room.

Epergne: J. & L. Lobmeyr, Vienna.

It is quite likely that the fashion, like so many other luxurious fashions, of decorating fans with artistic paintings, had its origin in the luxurious court of the Louis. Certain it is, however, that the fashion was and always has been most common and carried to its greatest extreme in France. Some of these are miracles of delicate workmanship and marvels of painting. There are fans in some of the European collections weighted with jewels and painted by the most noted artists of the day. A few years ago there was a remarkable

revival of the taste for painted fans—for these ladies' toys are more subject than almost any others to the changes of capricious fashion—and there are at present in Europe many persons whose entire time is given to doing decoration of this kind. The two specimens we illustrate on page 186 are charming examples of this kind of work. On one is a pretty little pastoral scene *a la* Watteau, and on the other is a design symbolizing the betrothal of happy lovers. Both are exquisitely painted and mounted in the most delicate and dainty manner possible.

Furniture Silk: Collective Exhibit of France.

The DESSERT SERVICE engraved on page 187 is a specimen of the plated silverware produced at the manufactory of the MERIDEN

Britannia Company. The central piece is particularly rich and elegant, the desire of the artist seeming to have been to produce something chaste rather than anything elaborate. The combination of glass with the silver is happily conceived, and the effect of these two materials in conjunction is almost always good.

The grotesque Jugs seen on page 188 are examples of Turkish pottery. The originals excited considerable amusement among those who saw them; nevertheless, perhaps more on account of their novelty than for any other

Beauvais Furniture Silks.

reason, they were in great demand. An exception to the charge of grotesqueness must be made for the jug on the left hand, which is beautifully proportioned. As to the others, odd as they appear measured by our canons of taste, they possess an individuality and freedom of design indicating genuine artistic feeling.

A wonderfully beautiful example of Belgium lace-work was a Parasol Cover, illustrated in the engraving on page 189, shown in the collective exhibit of that country. The pattern is beautifully designed. It radiates from the centre in a series of long narrow leaves, between which are sprays of flowers. Around this is a zone of fine open-work surrounded by a Vandyke border of great

delicacy and richness. The skill of the designer is well shown in the way in which he has managed to distribute his design evenly over the whole surface of the piece, so as to avoid any sense of crowding towards the centre, or of sparseness towards the circumference.

The reader can see in this example how well flowers and ferns—but especially the latter—can be used by the lace-worker as subjects for his design. It is, perhaps, better art, according to our modern canons of taste, to conventionalize natural objects, or to make use of purely geometric figures in decoration of this kind. But only the captious and hypercritical will be disposed to find fault with a minute and faithful copying of nature when the result is a work of such exquisite fineness and

Designs from Panels of Tapestry: Belgium Court.

delicacy. It seems curious that the passion for lace should be carried to such an extreme as this—that, for the mere purpose of display, a strong material, intended for exposure to the weather, should be protected (?) by a covering made of the most delicate and costly of all textiles.

The examples of jewelry shown on page 191 are taken from the collection in the Italian Court. One is from Signor Castellani's remarkable exhibit of reproduction of antique designs and methods of ornamenting metal by the use of granulated gold, and the other is more properly a finely chased setting for the magnificent matched jewels that it contains, from the establishment of M. Bellezza, at Milan.

Quite a triumph in the art of glass manufacture is illustrated in the Ornamental Vase engraved on page 192, from the establishment of Lobmeyr, in Vienna. This remarkable piece shows the newly re-discovered process of enameling with glass on glass. The outer surface of the vase is of a brilliant red enamel, the pattern being cut through to the crystal beneath. The ornamentation on the base is a combination of chasing and gilding very rich in effect, while the figures, of clear white glass, are treated in such a manner as to deaden the lustre and enable the contours of the body and the lines of the drapery to be more easily distinguished.

Bronze Standard: Mitchell, Vance & Co., N.Y.

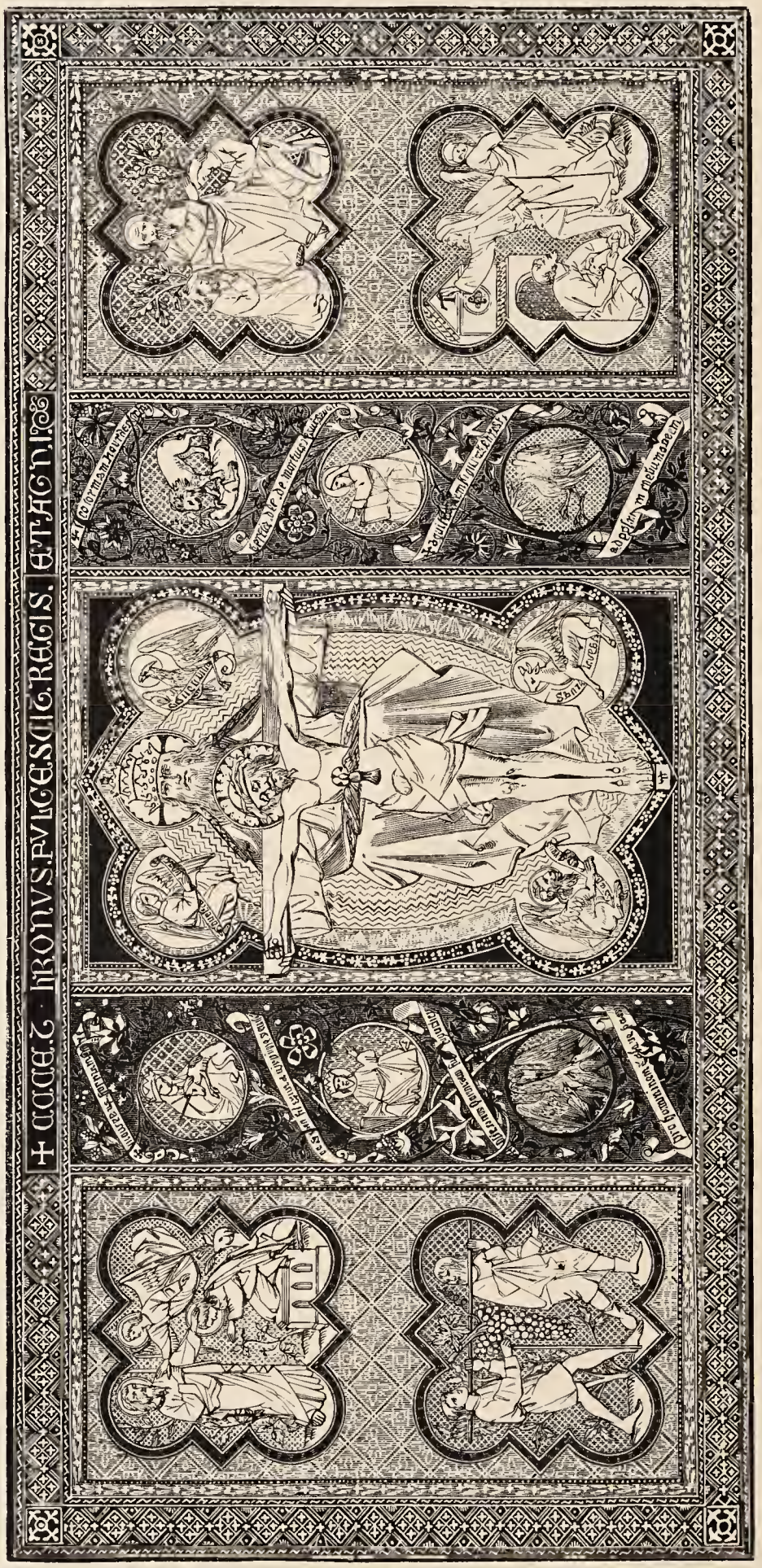
Within the past quarter of a century an astonishing impulse has been given to the art of designing by the adoption, in almost every part of Europe, of courses of instruction in drawing in the lower grades of schools. France has always recognized the

Bronze Stand and Vase: Collective Exhibit of France.

importance of this knowledge; but even in that country the education of children according to a scientific system has been largely improved and elaborated within the last two decades. The importance of a knowledge of drawing and instruction in the correct principles of design, in a commercial or purely utilitarian point of view, can hardly be overestimated. England, after the Exhibition of 1851, was persuaded with some difficulty to try the experiment of introducing such instruction into the public schools and providing institutes for more advanced study, and the result has been such as to silence the most bigoted opponents of the scheme. That nation, from being, next to the United States, at the foot of the list, as far as industrial art was concerned, in the earlier International Exhibitions, soon rose to a first rank. Our country is still at the bottom, and will remain there until some such system of education in designing as obtains in England is introduced into our primary and higher grade of schools.

As an evidence of the artistic skill which France applies to her industries, we have only to observe the wonderful variety and beauty of the designs that adorn her textiles, the brilliant contrasts of color, the harmonious blending of tints and shades, and the grace and elegance of the patterns. On the more costly fabrics, where elaborate decoration is appropriate, some of the designs have all the beauty of painting. Take, for example, the specimen of FURNI-

TURE SILK from the Collective Exhibit of France, shown on page 193. The two groups in the medallions are the work of an artist. Indeed, it is more than likely that as elaborate and varied a design as this is the work of several hands. Probably one man designed the scroll-pattern, another filled in the wreaths of flowers and leaves, and a third furnished the figures. It is quite common in Europe, in the larger establishments, to divide the work in this way among the specialists, whose talents are directed and combined by the chief draughtsman.



Altar Cloth: French Court.

Other examples of French Furniture Silk are illustrated on page 194. These came from the famous factory at Beauvais, and although the patterns are very much less elaborate than the former specimen, they are fully as good designs. The specimen on the right hand of the page is a particularly effective piece of work. The plant has been conventionalized with such skill that each phase

and aspect of its life has been preserved, and leaf, bud, blossom, and flower introduced with excellent effect.

Still another illustration of design applied to textiles is seen in the beautiful TAPESTRIES from the Belgium department, engraved on page 195. Here, indeed, the character of the work is of such a high degree of excellence that it is brought within the sphere of the fine arts, and might properly be considered under that head. It is by such combinations as these, where the genius

Necklace and Ear-rings: A. Castellani, Rome.

of the artist unites with the skill of the artisan to produce things of beauty, that the æsthetic taste and the commercial prosperity of a country minister to and advance each other.

No more striking illustration of the demand which modern civilization makes for the introduction of artistic elegance into objects of every-day use could readily be found than in the matter of gas-fixtures. So far has this demand been carried in this instance that the original purpose seems often to have been lost sight of entirely, and use been made subservient to beauty. For all purposes of illumination, the simple gas tube answers every require-

ment; but fashion has decreed that this tube shall be twisted into coils or hidden under ornamentation of a more or less elaborate nature. Year by year fresh

The Queen's Curtain: Royal School of Needlework.

devices have been called for, until at the present time it seems as if we had reached a point beyond which it will be impossible to advance. Not content with reproducing in bronze the most celebrated statues of ancient Greece and

Rome, and making them our light-bearers, the skill of our artists is employed to model figures that in character and pose will be appropriate for this use. One of these latter, exhibited by MITCHELL, VANCE & Co., OF NEW YORK, forms the subject of our illustration on page 196. It represents a draped female figure, bearing on her shoulder one of those graceful amphoræ, or wine-jars, from the mouth of which spring, plant-like, the gracefully curving branches of the candelabra. Candelabra it is but in name, however, for the seeming candles are but clever imitations of those once necessary articles. These modern imitations burn without diminution to their length. The figure rests upon an elaborate pedestal highly ornamented with scroll-work and boars' heads in relief, the whole being designed as a standard for a hall or drawing-room, where it will serve at once the double purpose of a thing of use and an object of beauty.

Portions of Lace Shawls: Swiss Court.

There is something peculiarly oriental in the BRONZE STAND AND VASE that we engrave on page 197, and there can be little doubt that the French artists by whom it was made had the modern taste for Eastern art in mind when this group was designed. The vase is a singularly beautiful work of art, and its workmanship is faultless. The raised ornamentation upon the handles and the chasing on the zone about the body are minutely elaborated. It was a novel thought to make the elephants' trunks serve as standards to the base, and one which at once suggests the French origin of a work that in other respects closely follows Chinese or Japanese models.

Pitcher: French Collective Exhibit.

A work which attracted considerable attention in the French Court was the beautiful and elaborate ALTAR CLOTH shown in our engraving on page 198. A study of this very remarkable piece of embroidery will amply repay the reader, who must be ignorant indeed if he fails to discover the analogy of the parts and their illustration of the sacred story. It cannot be, when such work as this is executed, that the days

"When art was still religion"

have passed beyond recall.

Our illustrations on page 199 take us back to a time when the workers in precious metal executed objects that have been the wonder and the admiration of all succeeding generations. The objects themselves are of modern manufacture, yet so closely do they imitate the antique originals that only such connoisseurs as their maker, Signor Alessandro Castellani, of Rome, would be

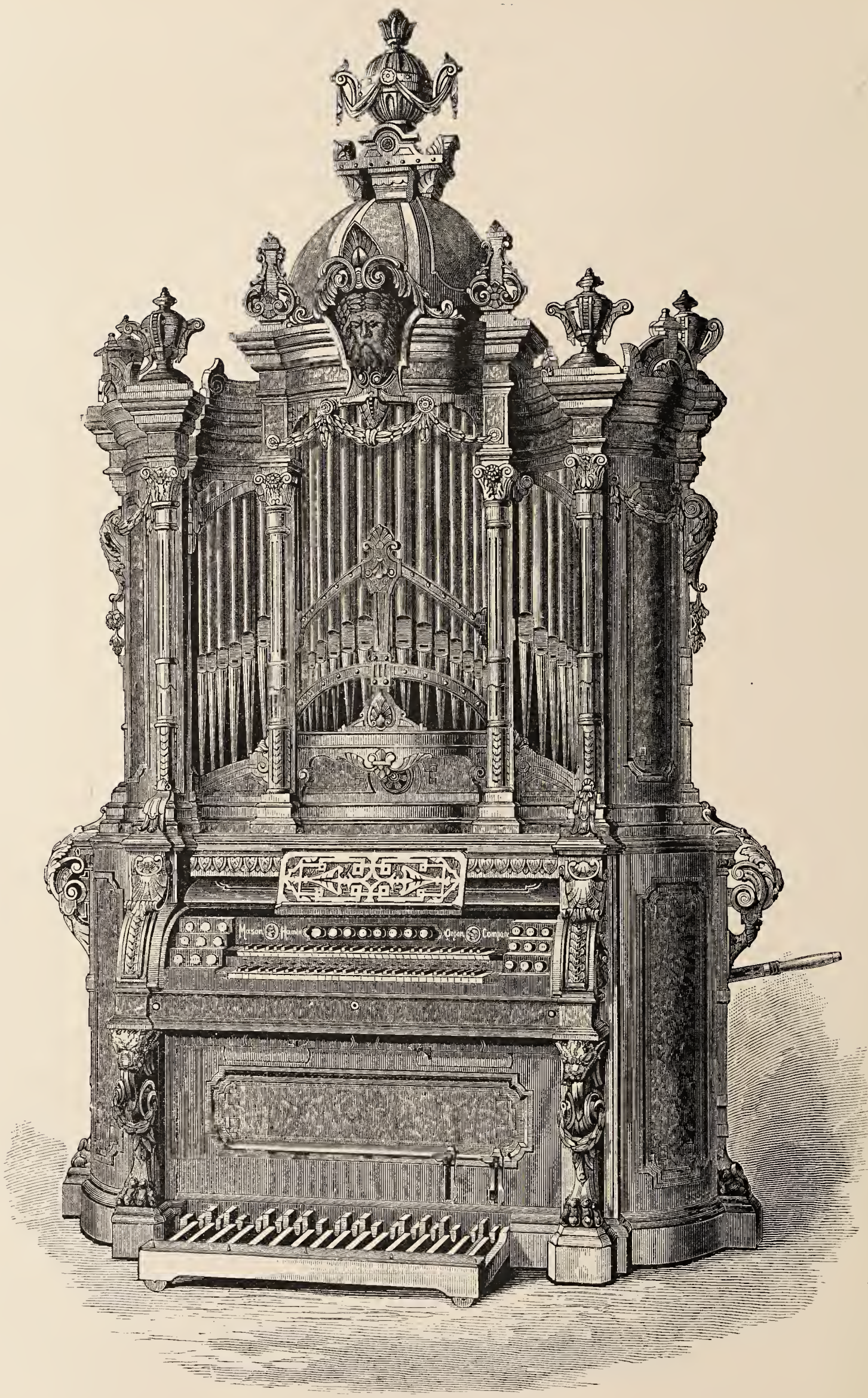
able to detect the difference, if any there is, in the texture of the gold or the fineness of the workmanship. As long as Europe has workmen who possess the art-knowledge and the skill requisite to produce such works as these, there is no danger of the jeweler's—or, more properly speaking, the goldsmith's—art degenerating. The study of the forms and the re-discovery of the methods which obtained among the artisans in the best period of metal-working is rapidly gaining for goldsmiths of the present age a first rank among artists.

The QUEEN'S CURTAIN, from the ROYAL SCHOOL OF ART NEEDLEWORK, shown on page 200, is so called because Her Gracious Majesty, the Queen, designed the pattern with which the border of the curtains and the vallance above are embroidered. It is a charming piece of work in itself, but it is chiefly noteworthy for the example thus set by Her Majesty to women throughout the realm to employ their leisure in refining and elevating pursuits.

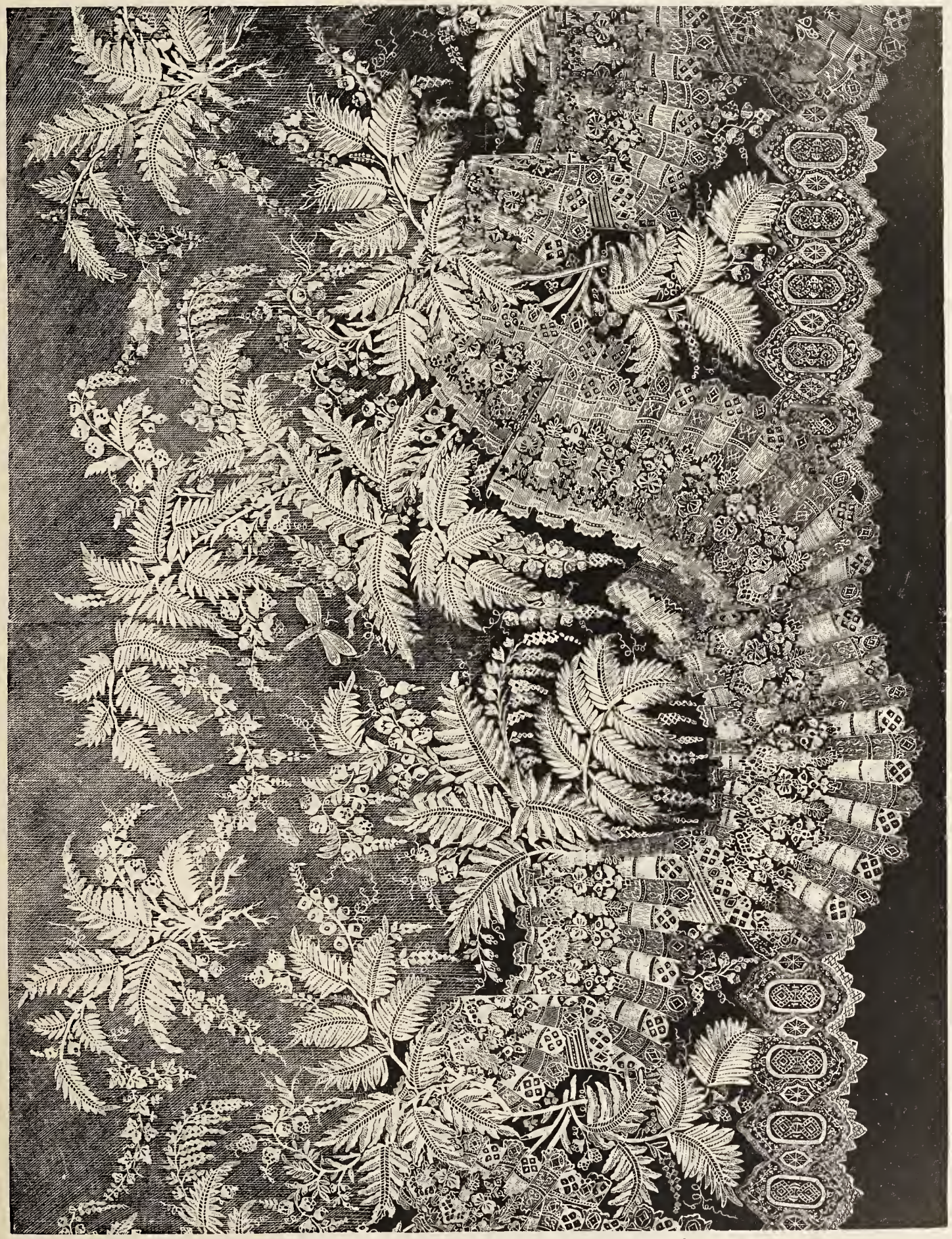
Amphora: Susse Frères, Paris.

We illustrate on page 201 two more examples of Swiss lace-work that may be profitably studied in connection with the specimens illustrated a few pages back. The designs here shown are much more elaborate than the former ones, and represent a different quality and manner of workmanship. These specimens have an additional interest also, in that in the motive for the design we can trace some of the delicate ferns and flowers of Switzerland, which the artist has grouped together with rare and exquisite skill.

From the exhibit of SUSSE FRÈRES, whose choice collection of works of art in the French Court attracted many visitors, we have selected for illustration the BRASS AMPHORA engraved on page 202. This splendid piece of metal-work was one of the most remarkable objects in their collection. In design it is at



Organ: Mason & Hamlin Co.

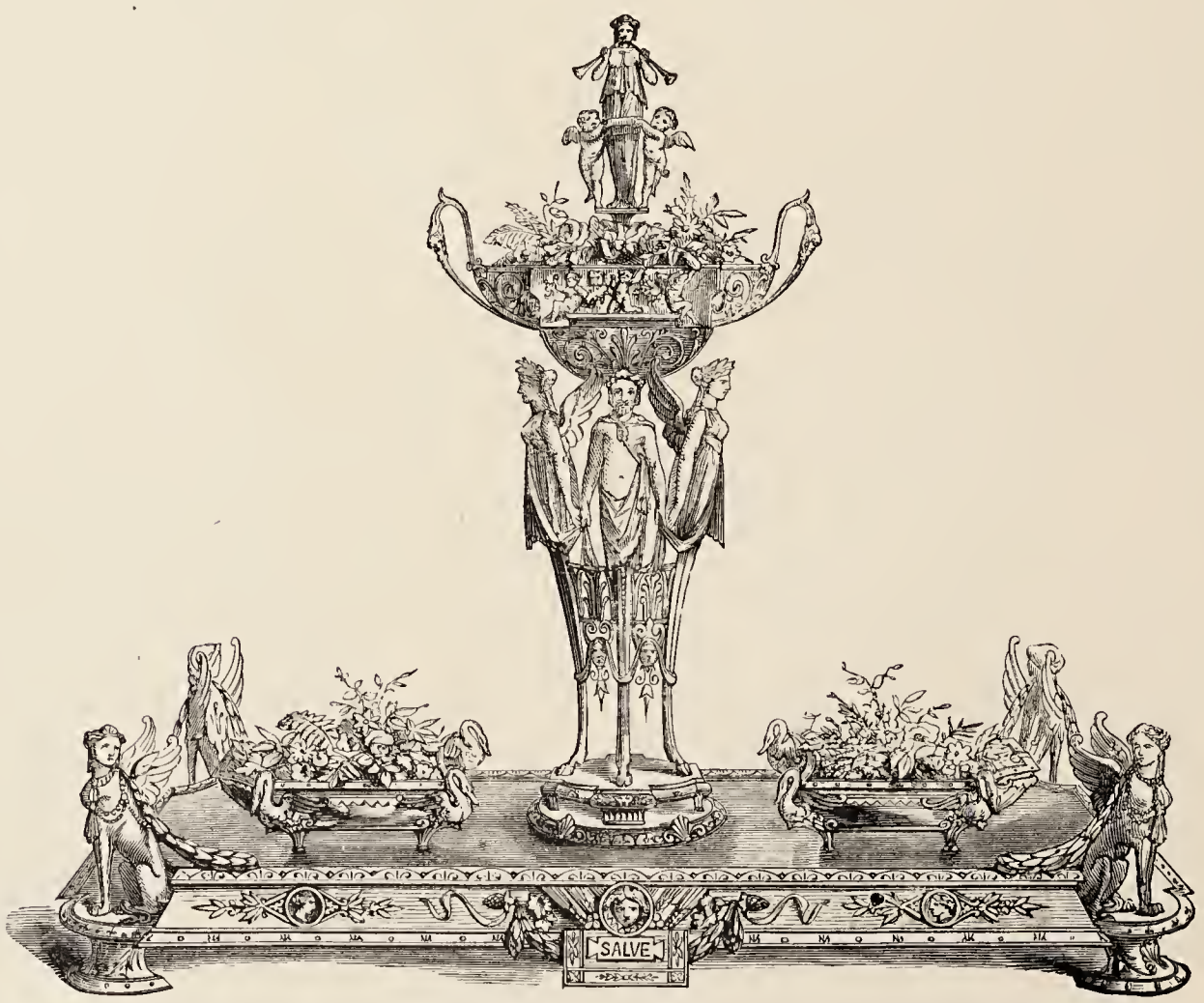


Portion of Lace Robe: Collective Exhibit of Brussels.

once elegant, graceful and spirited. The modeling of the figures forming the handle is particularly fine, and the *repoussé* work on the zone around the body of the piece is of the most finished and artistic description. It is from the

exhibition of such objects as this, and the stimulus thus given to our own

Group of Silver-ware: Elkington & Co.



Épergne: Elkington & Co.

artisans to emulate their foreign brethren, that we can hope to derive lasting benefit from the Centennial.

Another AMPHORA, also of French workmanship, which we engrave on page 203, may be taken as an illustration of similar results of a study of classical models. Here are two articles designed by different artists in different manufactories, yet both bearing a certain general resemblance and the stamp of antique methods. This piece differs from the former in that it is composed of bronze and white metal, the latter being used for the medallions on the body and the ornamentation of the handles, thus producing a rich and striking contrast.

Bronze Lamp. French Court.

An object that attracted the attention of the ear as well as the eye was the MASON & HAMLIN ORGAN, engraved on page 204. We cannot give our readers any adequate idea of the volume or the purity of the sound that issued from this organ, but they can judge for themselves from our engraving how beautifully the music was enshrined. Just as organ music suggests lofty, noble and grand themes, so the instrument itself should be built on noble lines, without any of the small detail that can be applied with propriety to instruments of lower range. The organ before us seems to embody this idea. It is a grand and massive design, in harmony with the music which will issue from its pipes.

The engraving on page 208 represents a PUNCH BOWL AND GOBLETS,

exhibited by the Middletown Plate Company, of Connecticut. It has been the aim of the artist, in designing this group, to embody and typify the jovial spirit and sense of good fellowship that accompanies the use of such objects. The bowl, a noble, generous one in size, is decorated with scrolls and medallions, in which the grape-vine in leaf and fruit appears. At either end are

Punch Bowl and Cups: Middletown Plate Co.

miniature bottles and goblets. The cover is surmounted with a little Bacchus seated, as god of the revels, astride a bottle, upon a cushion of vine-leaves. Two other jolly little fellows, mounted in like manner, whip their steeds towards each other from either end of the salver, on which the bowl and goblets rest. These goblets, like their neighbor, the bowl, suggest by their size a generous

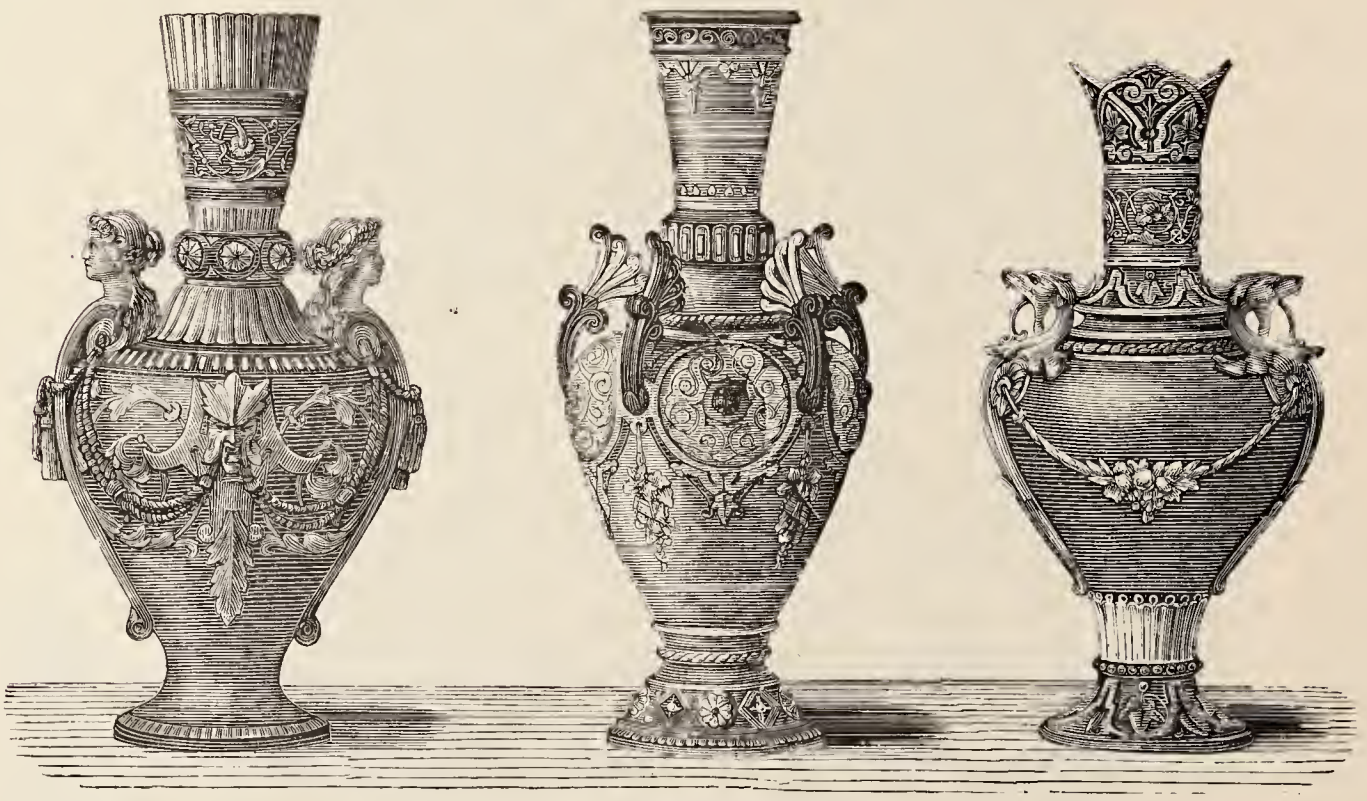
supply of liquor, and the vine-leaf and grape with which they too are adorned indicate what the brew should be. Next, perhaps, after the border around the edge of the bowl, which is exceedingly graceful and pretty, the figures of the Bacchi are the most notable features in this group. They are well modeled, and the upper one especially is full of life and action in his pose. It is a question whether the bowl would not have looked fully as well without the

Tazza: Emil Philippe, Paris.

upright bottles and goblets at either end of it; but it is not likely that those who enjoy the punch will be critical, and an envious judgment may be imputed to us who have to be content with simply gazing at the receptacle.

On page 205 we engrave a very rich example of Brussels lace selected from the collective exhibit of Belgium. This fine piece illustrates in an admirable manner the beauty of the patterns for which the Belgium lace-workers have long been famous. It will be observed that here, as in other instances, plant-

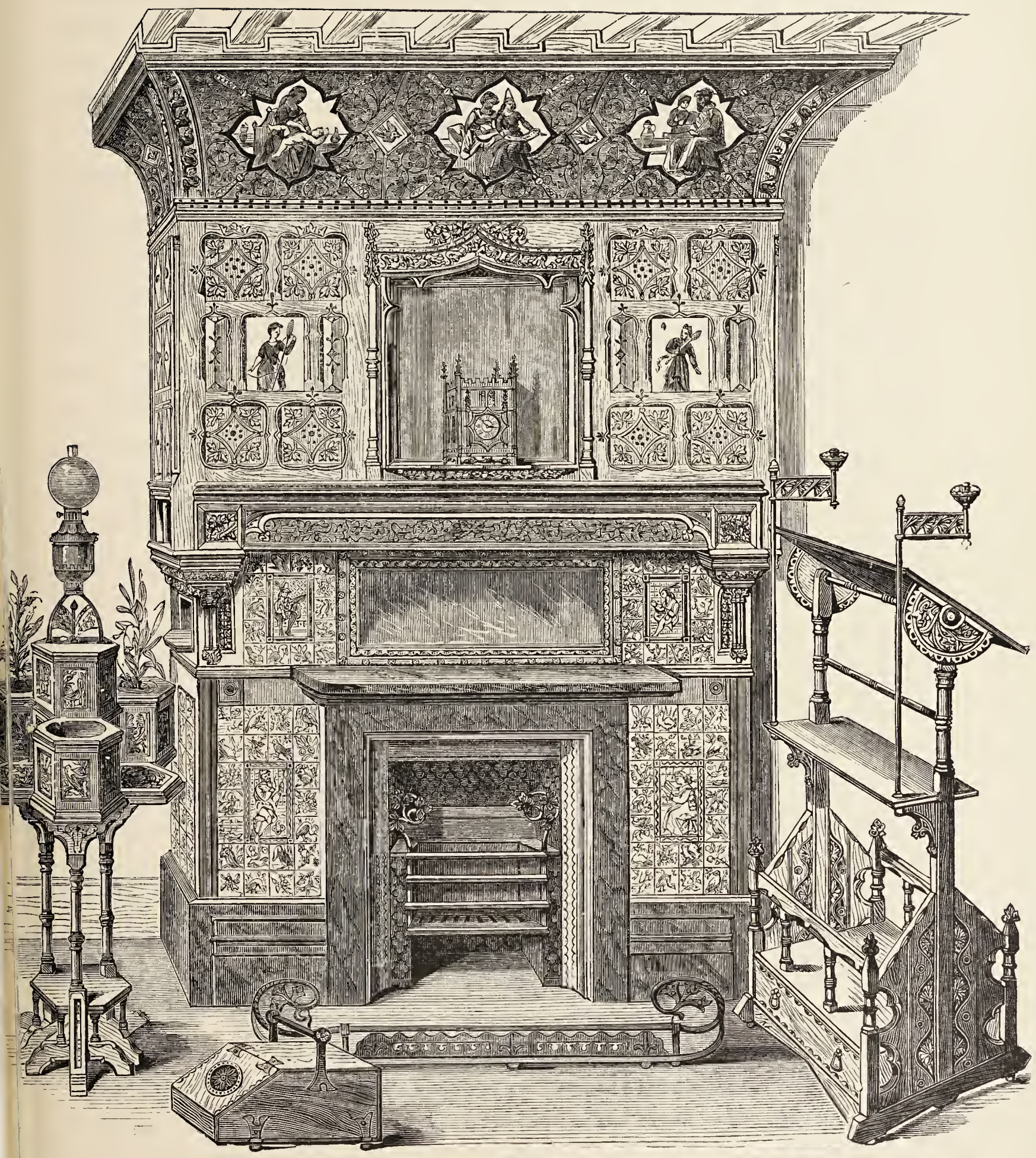
life furnishes the motive for the design, and that the fern, the most delicate and graceful of plants, is chosen; for delicate as are the veinings and markings of the fern-leaf, it is possible for the lace-maker to copy each line with minute fidelity. But in order to make such a design as this before us, something more than the ability of the copyist is required. It is necessary that the artist should have power to throw into his work that semblance to nature, that life-like appearance without which the most finished work is hard and cold and unsatisfactory. Look carefully at the design here; see how gracefully and easily each group combines with the others, and how harmonious is the effect.



Group of Vases: German Court.

No two groups are alike, though the same motive inspires all, and a finish is given to the whole by a tiny spray of ivy uniting the groups together.

It is possible that the ancient Greeks and Romans practised a luxury and lavishness in living that will never be equaled in any land or in any century. They studied the art of ministering to the pleasure of the senses by every possible means until they had brought it to a supreme point; and as objects of sensual beauty, the relics of that age will always serve as models. It is no wonder, therefore, that in the present revival of taste, the artist seeks his inspiration from these sources, or that the connoisseur finds an intellectual pleasure in studying his work. To the antique beauty of form, our modern



Mantelpiece: Cox & Sons, London.

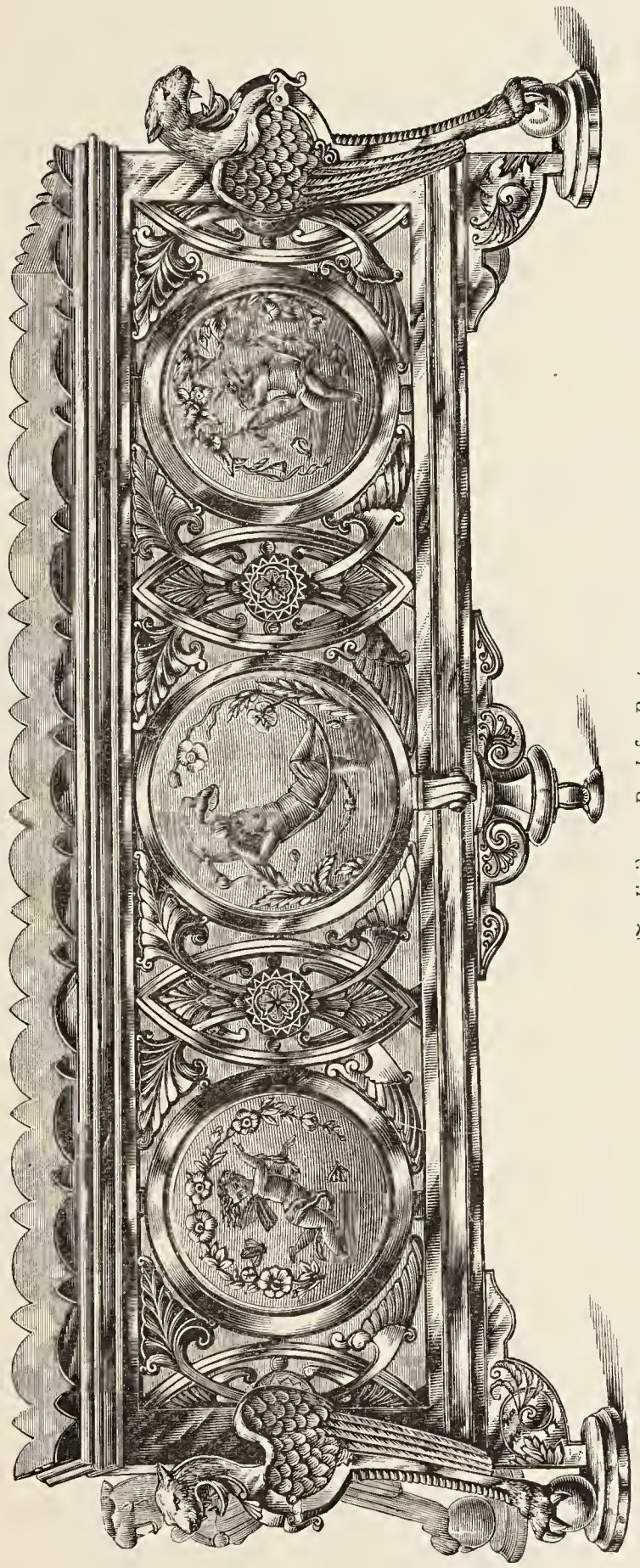
workman adds a refinement of treatment appropriate to our modern requirements and habits of thought, producing ornamental works of exquisite design. Take, for example, the ÉPERGNE and the group of TABLE ORNAMENTS from the manufactory of the MESSRS. ELKINGTON, AT BIRMINGHAM, ENGLAND, that we illustrate on page 206.

What more graceful object as an ornament to a table could be desired than this first-named piece? As an example of fine metal-work it is simply superb. The sides are inlaid or damascened with medallions and scroll-work; at the corners are winged genii, half human, half animal; and the surface of the base is of polished steel, reflecting back the shapes of the flower-vases that rest upon it. From the midst rises a tripod, terminating in draped female figures supporting the central vase and the crowning group of Loves and Fame.

In the second illustration we have a group of five pieces, designed after a favorite classic pattern. Here the legs of satyrs, surmounted by a satyr's head, form the support, and an open scroll-work of a simple pattern fills up the intervening space. Below, upon the base, a lamp is introduced, and the resemblance of the whole to a sacrificial vase is heightened by the shallowness and general shape of the dishes supported by the standards. Without being exactly the same in design, the resemblance of shape in these pieces, each to the other, is quite sufficient to indicate that they all belong to one set or group of ornaments.

An example of metal-work of more than ordinary richness is the BRONZE LAMP, one of the exhibits in the French Court, shown on page 207. In the elaborateness of its ornamentation and the intricacy of its design it resembles some of the gorgeous objects of art that were produced in the days of Louis Quatorze. From a leaf-covered base rises a bowl banded with ribbons and scroll-work in low relief. In the centre is a medallion of a lady, with a legend after the manner of Roman amatorii—"La Romana Noblissima." On the second member of the lamp are bunches of flowers and fruits, from which rise scrolls and bands encircling the neck and twining about the masks that ornament its upper portion. The most noteworthy feature in the whole are the handles of the lamp, composed of winged caryatides, freely and boldly modeled, the drapery, from the waist downward, shading off and blending into the scroll-work around the bowl. The whole design in this work is conceived in a manner of oriental

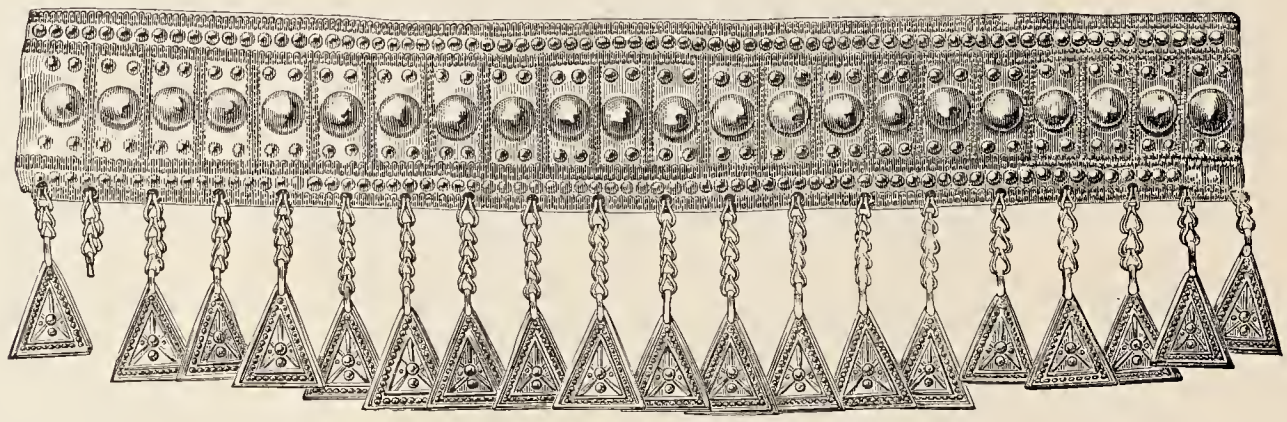
richness, and the deep, warm color of the bronze metal adds greatly to the effect.



Jardinière: Reed & Barton.

A pleasing wall ornament, and one which from its intrinsic beauty and merit will never become tiresome to the possessor, is the TAZZA, manufactured by EMILE PHILIPPE, OF PARIS, that we engrave on page 209. The design is one of those happy combinations of the grotesque with the natural, in which French artists delight to indulge their fancy. The central figure is a cupid, borne aloft by winged monsters with the body of a bird and the head of a beast, while above him is a device suggestive of a crown. Below are cocks' heads, terminating in scroll-work. On the border, or rim, is a spirited and beautiful design of leaves and flowers, drawn with a free, bold hand and much artistic elegance. At their junction above is a satiric mask of fine execution. If the utilitarian asks what such a device as this means, or what is the good of it, he will be baffled. It is not an object of use, but of ornament, a brilliant bit of fanciful design wrought in metal for the delectation of those who can find pleasure in objects whose only use is to please and amuse.

Aside from the exhibit of the Royal Porcelain Works, Germany made but a small and unsatisfactory show of pottery. Many of her most noted factories were unrepresented, and some of her most famous wares were not to be seen. The small collection of that peculiar kind of stoneware, of a mouse-colored body with ornamentation in blue relief—this is but a general description, to which there are exceptions—was, however, mostly made up of choice examples. The three pieces that we engrave on page 210 are of this description. They are all good copies of antiques and excellent pieces of workmanship. The vase on the left hand is particularly remarkable for the fine modeling of its figures in relief, and that on the right for its graceful lines. The centre piece is of a more oriental character, and is equally good in its way. Although this



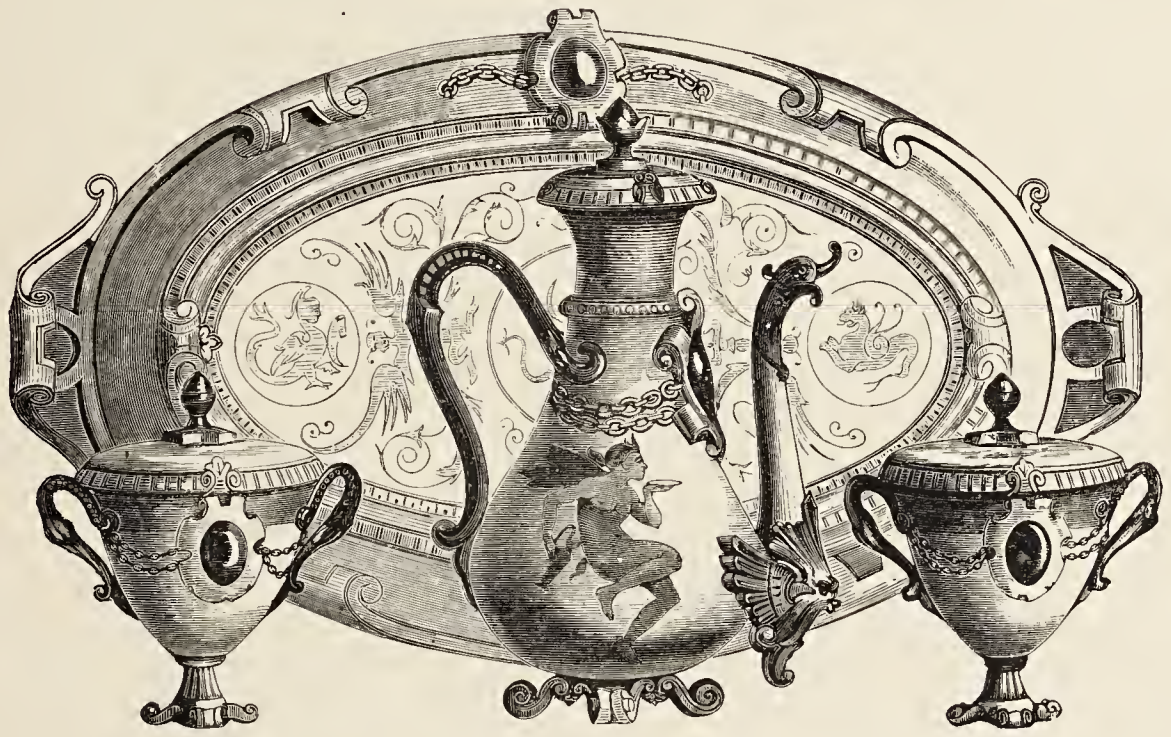
Portion of Gold Necklace: Egyptian Court.

style of vase was not new in this country, this collection attracted considerable attention, and every piece was purchased long before the Exhibition closed.

The superb Mantelpiece from the collection of Messrs. Cox & Son, England, seen on page 211, is an admirable illustration of the advance in art-culture and art-workmanship that has been made in that country during the last quarter of a century. The wrought metal-work, the tiles, the painted panels in the entablature, the diapered patterns, the thorough, workmanlike construction in the wood-work, each and all are an outgrowth of the revival in industrial art matters began in 1852. It is a substantial, massive design, correct in principle and most artistically executed. The materials, too, are not of an expensive nature; and if the piece is costly, the price asked simply indicates the demand for skilled and trained labor and artistic design. There is no reason why just such works, equally good in every respect, should not be made in this country;

and provided exorbitant prices are not asked, there will always be a sale for them here.

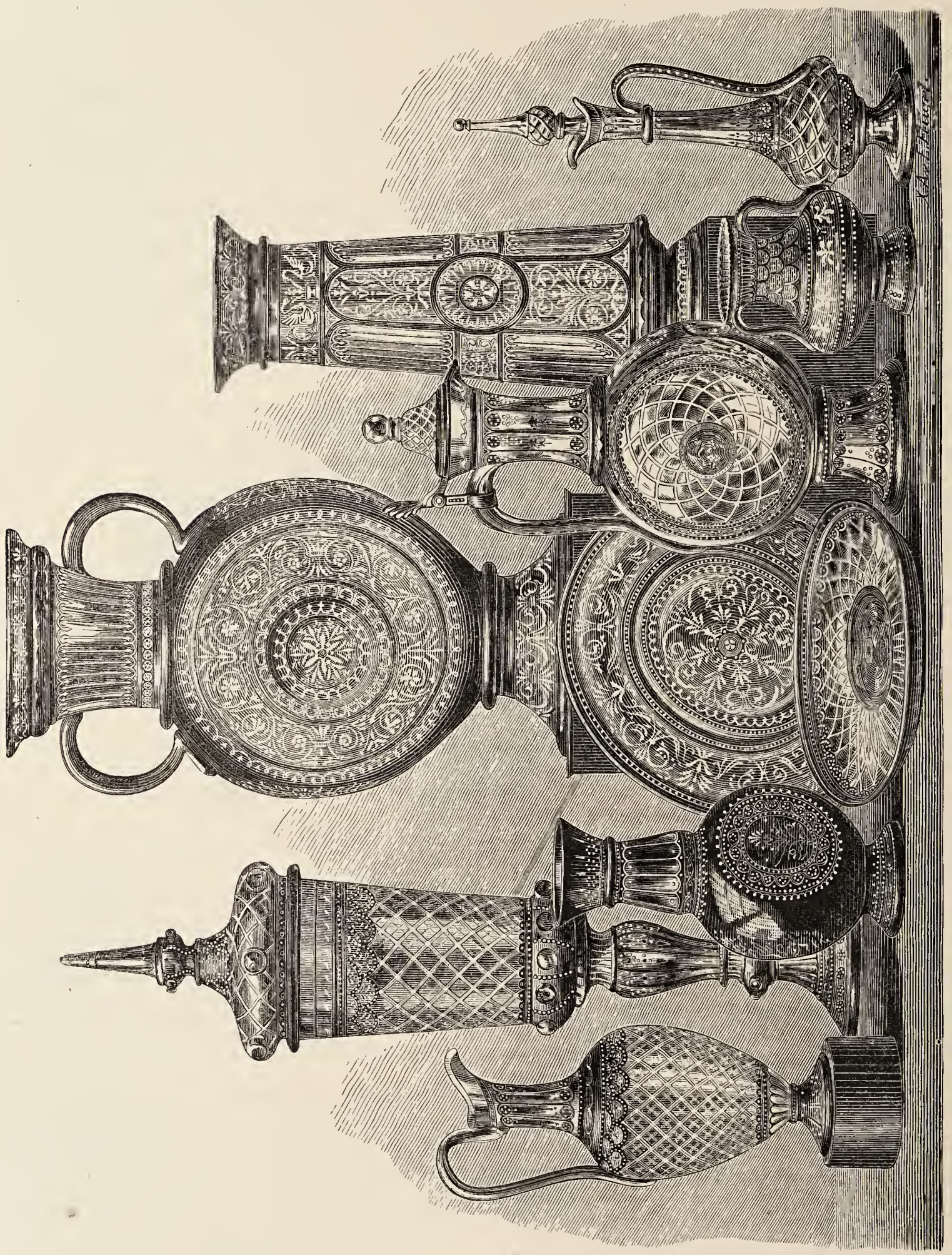
The fashion of having plants growing in our houses is, notwithstanding the warning of physicians, a commendable one. The trouble is to keep them alive; for the dry, furnace-heated air that we breathe is more fatal to their health than to ours. But a portable box that can be transported from one room to another overcomes this trouble in a great measure, and renders it comparatively easy to keep plants growing in the house during the entire



Porcelain Tea Service: Royal Porcelain Factory of Berlin.

winter. The JARDINIÈRE that we illustrate on page 213 is as graceful and pretty a device of this kind as need be desired. It is the work of REED & BARTON, OF TAUNTON, MASS., and is so artistic that even if it is not used for the purpose for which it is designed, it will always be a charming ornament in itself.

On page 214 we engrave a section of a wonderful GOLD NECKLACE, from the Egyptian Court, that shows the peculiar characteristics of that school of design. The reader will observe the entire absence of scrolls and interwoven patterns, and the straightness of the lines. Yet whatever it may lack, to our eyes, in elaborateness of design, is made up in the workmanship, which is astonishingly fine and minute. The very simplicity and severity of the device will probably recommend this necklace to the esteem of many.



Group of Venetian Glassware: J. & L. Lobmeyr.

Among the minor works of art exhibited by the ROYAL PORCELAIN WORKS OF GERMANY were dinner- and tea-services of an infinite variety of shapes and

Cashmere Shawl from Saxony.

patterns. One of the most beautiful of the latter, a porcelain TEA SERVICE of four pieces, we engrave on page 215. Though each of the pieces is noteworthy

in its way, the central figure, the pitcher, will attract the most attention, both for its graceful shape and for the decorative and ornamental work displayed upon it.

Bronze Vase: Spanish Court.

We cannot hope to convey to the reader any adequate idea of the brilliancy and richness of the coloring in the group of ornamental GLASS-WARE which we have engraved on page 216. The pieces are from the famous factory of LOBMEYR, OF VIENNA, and are characteristic of the wonderful productions of that city. Here is opalescent glass, cut crystal, glass blown to the thinness of paper, colored enamels and gold intertwined together in the most marvelous way, and, in short, illustrations of the latest discoveries in the art—an art, by the way, that seems in a fair way of recovering, during the present century, the processes of glass manufacture that have been lost for hundreds of years.

Nowhere else in the world has the art of combining gorgeous color and brilliant design been carried to such perfection as in the Orient. The textiles of India, famous as far back as history or even tradition can go, have always been the wonder of the world, and it is only of late years that the discoveries of science and the application of mechanical means have been able measurably to imitate the marvelous products of the Eastern loom. On page 217 we give an illustration of one of the best of these imitations. Every lady will recog-

nize it at once as one of those objects dear to every woman's heart—a CASHMERE SHAWL. The peculiar richness of the pattern in this example is rather heightened than lessened by the combination of colors, that are not of a gorgeous kind, but of warm tertiary and secondary shades and tints, more restful and pleasing to the eye than is always the case in these fabrics. The specimen shown was made in Saxony, but only an expert could say with certainty that it was not a veritable Cashmere.

Our illustration on page 218 is taken from the metal-work display in the SPANISH COURT. It is a BRONZE VASE, inlaid with silver and engraved with chasings in the manner peculiar to Moorish art. In its shape the vase has its counterpart in vases made in Persia many centuries ago, and it is to Persia that we trace the so-called Arabesque ornamentation and the decorative designs made familiar to us by the Alhambra and other monuments which have served as models for Spanish art ever since. It is now believed by men who have studied the subject that the Arabs themselves were not an artistic people, although their rulers were often patrons of art and science, who encouraged the cultivation of foreign tastes and the colonization of foreign workmen.

The descendants of Mohammed having conquered Persia, doubtless modified the art of its inhabitants, and from this modification arose the well-known Arabesque style. It fairly covers an object with interlaced scroll-work and lines of bewildering intricacy. Figures of beasts and monsters are introduced and inscriptions in some ancient character. It is curious to note, by the way, how this habit of using inscriptions in some instances survived the knowledge of the character itself, which from being a collection of properly formed letters, making words, came to be nothing more than a fanciful pattern for decorative purposes. Whether the decoration on the handles of this vase is an example of this, or whether it is an inscription, is beyond our knowledge to say; but at any rate any one can see here an illustration of our meaning.

In the upper portion of the body of the vase, animals are introduced, and here again, both from the creatures themselves and the manner in which they are drawn, we recognize the oriental methods. We have not space, however, to dwell longer on this interesting subject. The reader can see for himself that here is a strongly marked style of decoration essentially different from all others, and for metal-work, perhaps it is not too much to say that it is the most effective of all.

Among the numerous other curious and interesting arts seen in the Egyptian Court, the one of enriching leather by decoration in gold and color, of which the SADDLE-BAG engraved on this page is an illustration, was one that attracted much attention. The effect of this work was rich in the extreme, and it is apparently popular with the people, for numberless articles, from the trappings of horses to small purses and toilet articles, are thus decorated. In this instance the gold appears to have been used in threads as an embroidery, worked into a pattern drawn with remarkable skill.

Saddle-Bag: Egyptian Court.

Our illustrations on page 221 take us back to France and to the famous porcelain manufactory established at Sèvres, and patronized by all Europe. We were fortunate in having an exhibition of some of the finer examples of Sèvres porcelain at the Centennial, sent to us by the courtesy of the French Commission. None of this display was on sale; it was simply a contribution towards making the celebration worthy of its high aims. In the same spirit the Sèvres porcelain was not put in competition with the productions of other factories, for it unquestionably would have taken all the honors.

Fostered by the lavish expenditure of royal means, afterwards carefully superintended at Government expense, with the best chemists in the world to perfect the methods of manufacture, and with great artists employed to decorate and design the ware, the porcelain of Sèvres has long been pre-eminent. The factory is, in itself, a school of decorative and constructive art.

Of the three pieces which we illustrate, one, the central piece, is of *pâte dure*, or hard porcelain, and the other two of *pâte tendre*, or soft porcelain, an artificial composition which has always been considered the perfection of the potter's skill. In the former, the colors lie sharp and distinct upon the surface

of the ware, but in the latter they sink in and obtain a depth and richness that seems fairly to absorb light.

Many of our readers will recall, perhaps, the splendid brilliancy of the blue color in the piece, heightened by the gilding to the handles, seen on the right hand of this group.

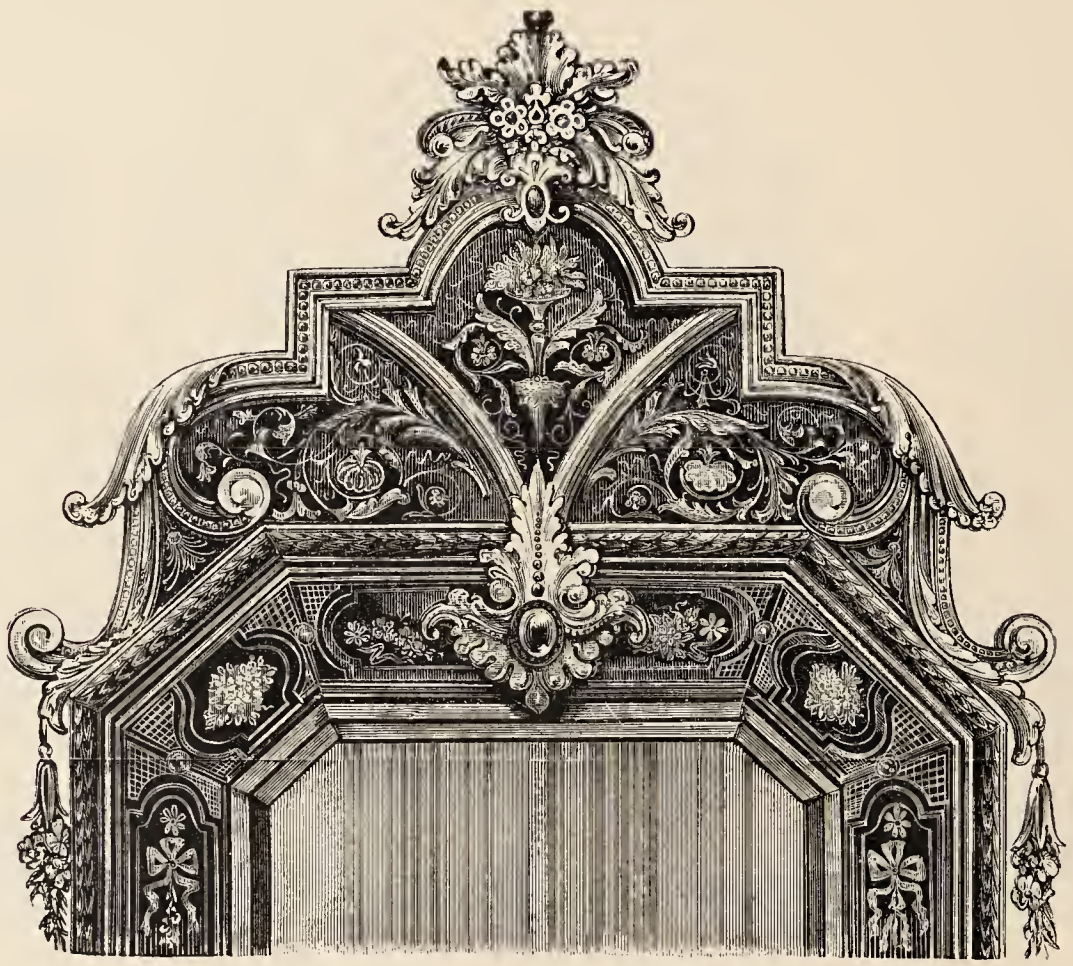
As an illustration of the way in which glass may be used for ornamental purposes, the MIRROR, from the LOBMEYR Exhibit, in the Austrian Court, of which we engrave a section on page 222, may be studied. Looking at it, one would hardly realize that the polished reflecting surface of the mirror was of

Vases of Sèvres-ware. French Commission.

the same material as its frame. In the latter, relief-work, scroll ornamentation, delicate pendants and medallions, finely decorated in color, are introduced. Gilding, too, is applied, and every kind of finish that may be desired is given to the surface. In one place it has the appearance of translucent enamel; in another it is opaque; again, a bosse gleams with the lustre of a jewel, and still other portions seem to have a velvet softness. It is, moreover, an astonishingly rich piece of color, the ruby red, which this manufacture produces so successfully, predominating.

From these crystal jewels we turn to the inspection of real gems—garnets, the carbuncle of the ancients, by whom the stone was indued with magical

qualities. In the set of jewelry illustrated on page 223, nothing but garnets are used. These, carefully chosen to match in color and size and manner of cutting, have been set in embossed gold, so as to form a graceful and pleasing pattern. As a border or frame to each piece, sprays of laurel have been added, with ribbon-bows above and below. Beneath these, as a pendant, one large garnet, cut to a pear shape, is suspended in such a way that its vibrations may scintillate the brilliancy of the gem.

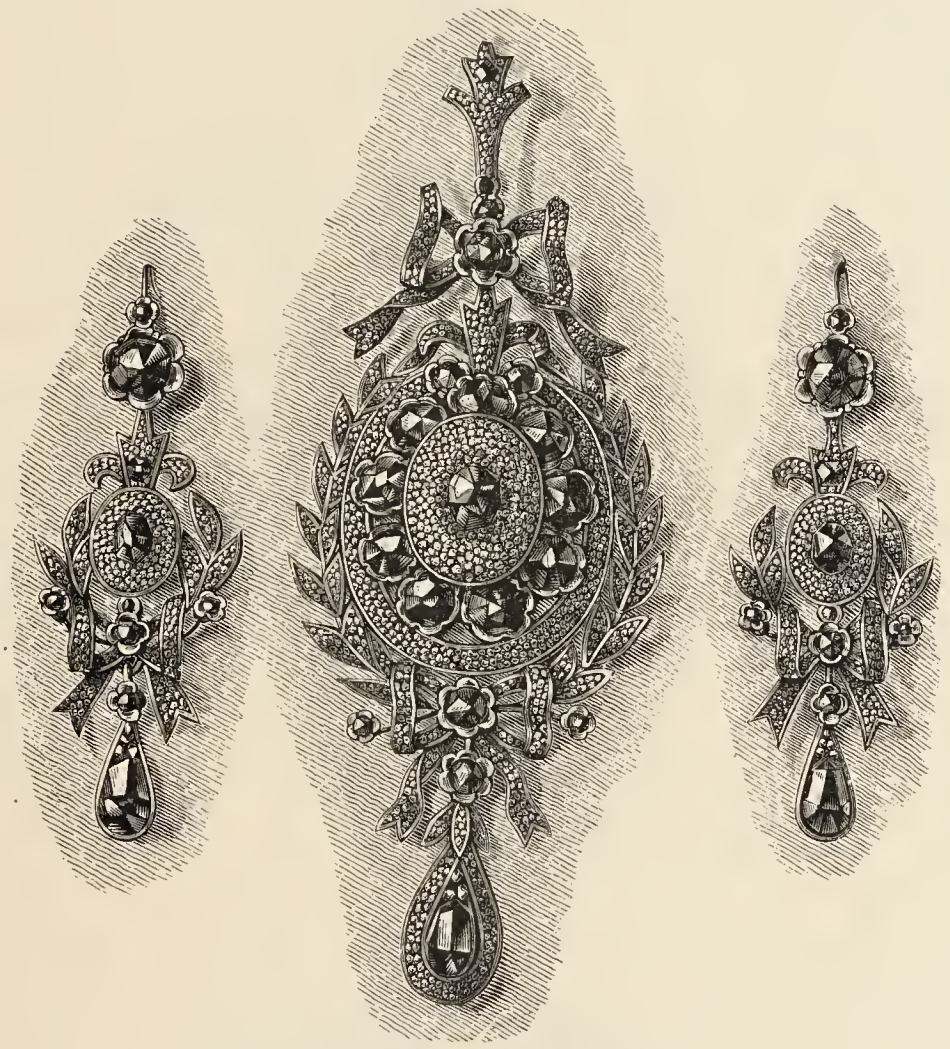


Portion of Mirror: J. & L. Lobmeyr, Vienna.

Doubtless many of our lady readers, in these days when the minutest details of the toilet are studied, will think of costumes with which this set of jewelry could be worn most becomingly, but we venture to say that few of them know, or fewer still would care to admit, that all personal adornment of this nature is a perpetual reminder of the servitude of woman to man. Necklaces and bracelets had their origin in the collar and handcuffs of the slave, who was bartered and sold like any beast. It may even be that the nose-ring and lip skewer, still in use among savages, were used to lead resisting maidens and to enforce silence; but we have no authority for this, and merely hazard

it as a suggestion to those curious on the subject. However this may be, the women of the present day have their satisfaction and revenge in causing their lords and masters to buy the chains with which they, these same and other lords and masters, are afterwards enslaved and enthralled.

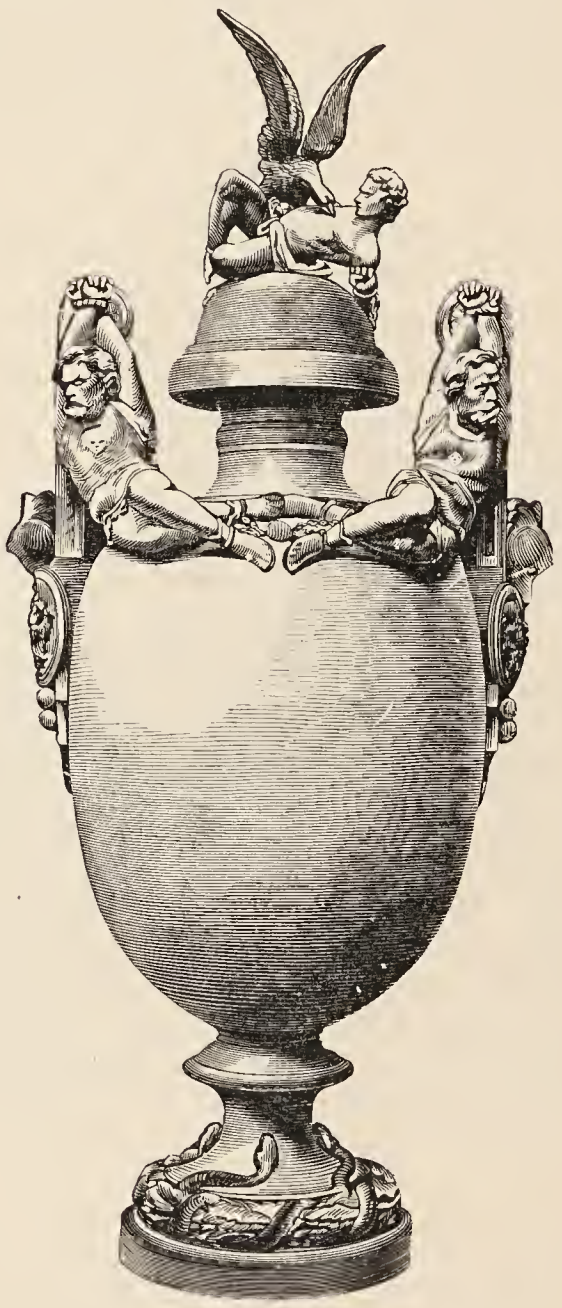
It has been well said that "the resources of art in the form of pottery have at all times, especially in the great art epochs, been seized upon to express the art appreciation of different races. The Etruscan vases have made per-



Garnet Set: Goldschmidt, Prague.

manent the chaste feeling of their authors, and transmitted to us the refinement of other ages. The Egyptian pottery was exceedingly beautiful in form and outline, though somewhat rude in material; and the vessels which have been used by different peoples, and have been preserved to us, are the clearest manifestation of the condition of domestic industrial art among them. Perhaps in this branch of industry the progress made during the last twenty years has been greater than in any other, and it has been in the direction of a return to simplicity and ancient forms. This last remark is especially true of Eng-

land. Wedgewood produced work in his famous potteries at Etruria that was exceptional. With Flaxman to design for him, and with his own appreciation of the beautiful, he raised the potter's business almost at one stroke to a position among the fine arts. The example of Wedgewood has been of incalculable benefit to his industry in England. Where he once stood alone in his pre-eminence, now there are half a dozen great manufacturers, producing pottery and porcelain equal in material and comparing favorably in design and decoration with European wares.

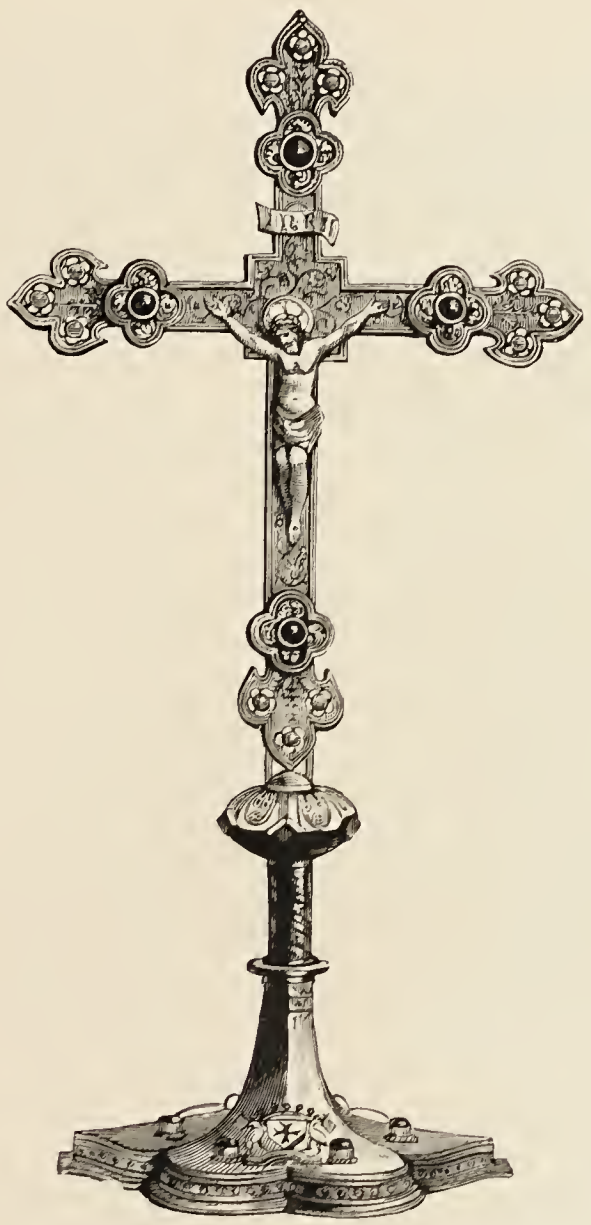


Promethean Vase: Daniell & Son.

No better illustration of this is needed than the superb collection of English art-pottery exhibited by the MESSRS. DANIELLS in their department in the English Court. To one who had not followed the wonderful development of this industry in England within the last quarter of a century, the sight was a revelation. The effect of the system of art-instruction and the awakened interest of the community in æsthetic culture was visible on every hand in objects noticeable for beauty of form, purity of color, and correctness of drawing.

Several of the choicest pieces in this collection have already been illustrated in these pages, and now we add another, in the engraving on this page, of the PROMETHEAN VASE. This vase is equally remarkable whether we consider the quality of the workmanship or the art displayed in its design. For the former it will be sufficient to say here that it is absolutely without a flaw, and the reader can see for himself how fine and harmonious are all the features of the ornamentation. The vase is of ovoid shape, somewhat flattened at the top. The neck is short and narrow, without ornamentation, and the mouth is covered by a cap. Around the base are several

serpents, issuing from rock-crevices, and stretching upward toward the stem. On either side of the body are medallions, with relief-masks, serving as brackets to the uprights which form the handles. To these are chained male figures, vigorously modeled, exhibiting, in pose and expression, the agony of their position. Surmounting the cap is the figure of Prometheus, chained and bound to the rock, while perched with extended wings upon his thigh is the vulture tearing at his vitals. The artist has here treated his theme with great skill, and not the least meritorious feature in the whole is the manner in which the attention is concentrated on these three figures by making the other parts of the vase severely plain and unadorned.



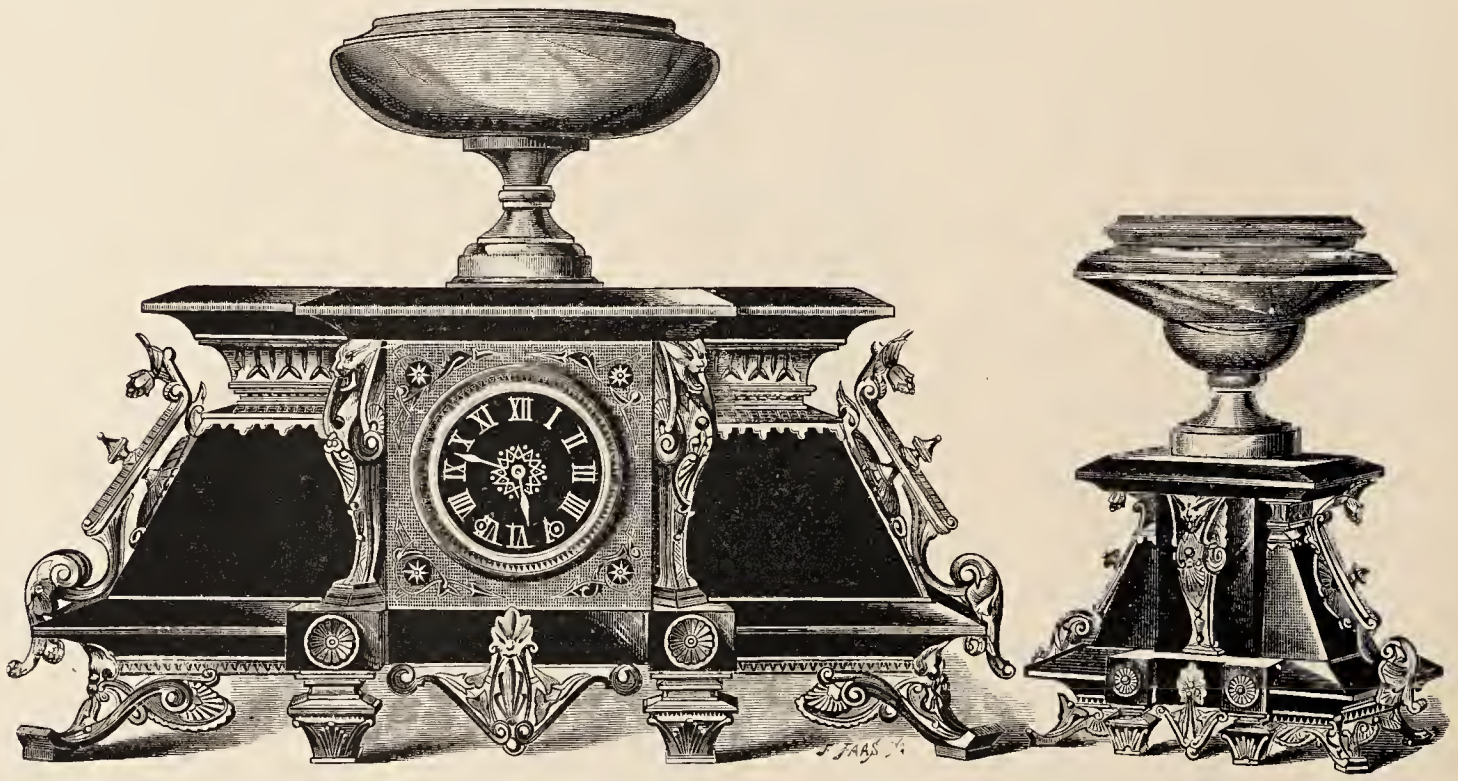
Metal Crucifix: R. P Poussielgue, Paris.

One need hardly be told that our next illustration, the METAL CRUCIFIX, on this page, is of French manufacture, for the spirit of French art is plainly visible in every line of the design; yet, elegant as the object is in form, its execution does not equal the metal-work of two centuries ago, when art was religion, and the artisan and artist seemed to put the fervor of their faith into their work. Even with the many superb examples of the metal-work of that time in the museums of Europe, free to the study of our modern workmen, it appears impossible to instill into them the enthusiasm and fervor necessary to originate equally vigorous work. This crucifix is undoubtedly a fine specimen of modern workmanship, beautifully designed, richly ornamented, and elaborately finished. The figure of the Christ is carefully modeled, and all the details and accessories have been studied with care and executed with skill, so that, after all, if we measure it by the standard of modern excellence, it worthily represents the best metal-work of to-day.

The influence of French fashions and French art on our American manu-

facturers is seen in the handsome Clock and Vase, made by Mitchell, Vance & Co., of New York, which we engrave on this page. An ornamental clock, accompanied by a pair of vases, may almost be considered a necessary part of the furniture of a French room. Indeed, so common is the use of clocks in that country that there are persons in the cities, whose chief business is to go about winding the clocks and seeing that they are kept in repair. The clock-winder of the Grand Hotel, in Paris, goes his round of the rooms daily with the regularity of the watchmen.

In this country, however, though we have adopted the fashion, we care less



Bronze and Marble Clock and Vase: Mitchell, Vance & Co., New York.

for the use of the article than for its artistic setting. It matters very little to the average American housekeeper whether or not the time is registered on the "parlor clock," so long as its humbler prototype in the kitchen is correct; and the group before us is so handsome in itself that one might well desire it simply for ornamental purposes.

The body of the pieces is a fine black marble, enriched with gilt bronze ornaments; the vases being of rich copper-colored metal.

The upright Ebony Piano illustrated on page 227 is from the exhibit made by R. Ibach & Son, of Barmen, Germany, in the German Court at the Centennial. The case is a splendid piece of rich carving, neither over-elaborated

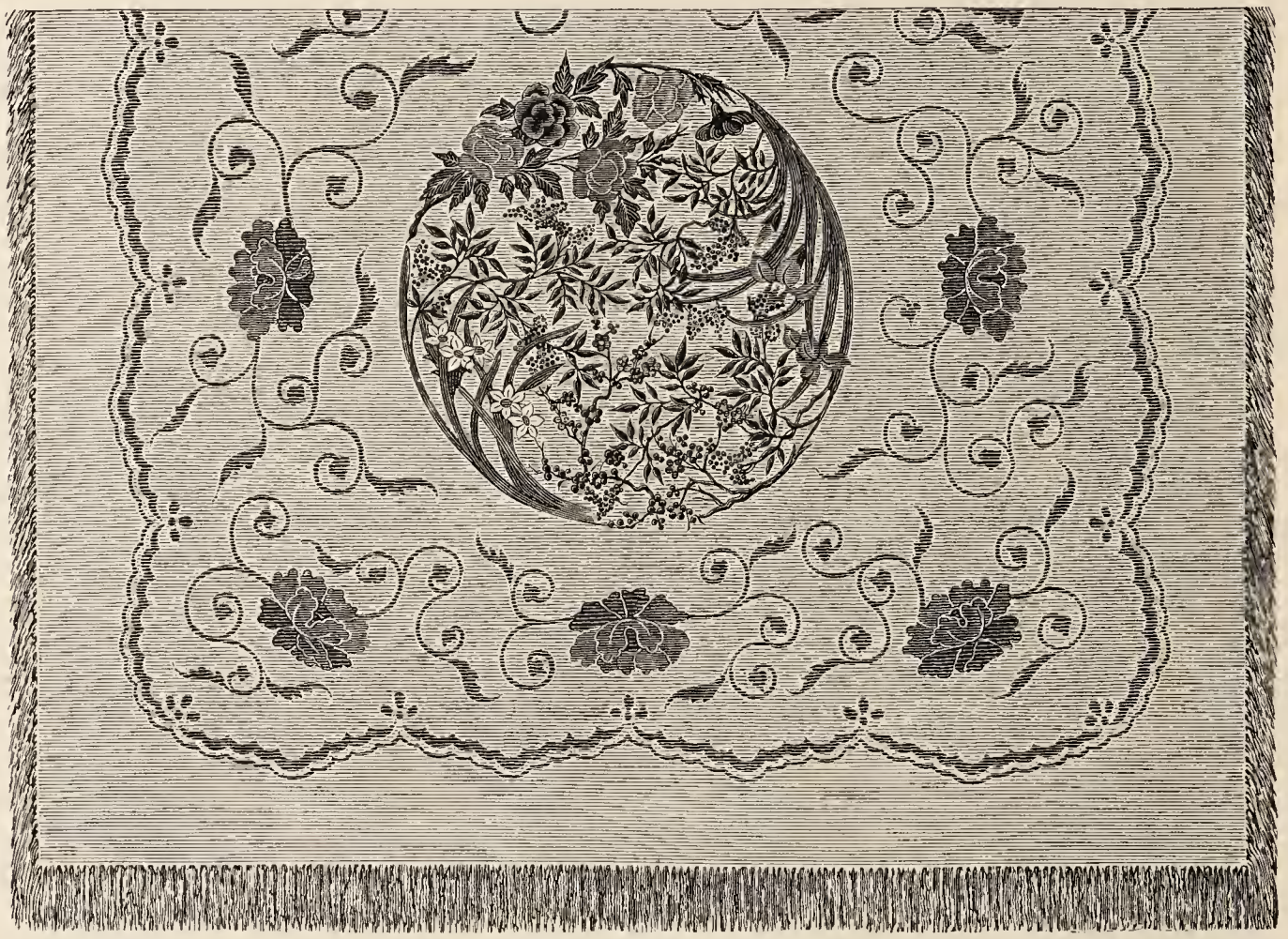
nor too barren in detail for an object of this kind. The two lower panels are perfectly plain, with only a small beading around the frame. On the pedal post is a group of musical instruments carved in low relief. On either side, however, and serving as supporters to the key-board, are winged griffins elaborately executed in the round, and forming the most striking feature of

Ebony Piano: R. Ibach & Son, Barmen, Germany.

this portion of the case. The upper portion, which is less concealed from view, is much more highly finished. The pilasters and cornice have finely wrought designs of a Pompeian pattern covering all their surface, and the central panel contains, beside, fine scroll-work, groups of loves and swans executed in relief. The side or end panels have frames of the same style

as those in the base, but they have, in addition, as ornaments, vigorously carved masks with rings.

It is satisfactory to note here the prevalence of hand-work over machine-carving. The latter method has been the means of multiplying much that is good in wood ornamentation, but it has also been the fertile source of much more that is meretricious and entirely bad. The multitude desire quantity without regard to quality, and a manufacturer with the aid of his machine saws



Portion of Bed-Cover: Japanese Court.

and lathes panders to this taste by turning out vast quantities of articles loaded down with florid and cheap ornament. There is no reason why a good model should not be selected in the first place, but as a matter of fact this is rarely done; or if it is, the manufacturer, putting his taste above that of the trained artist, makes some change that he thinks will make the article more salable and popular. Certain it is that "the best workmanship and the best taste are invariably to be found in those manufactures and fabrics wherein handicraft is entirely or partially the means of producing the ornament."

This it is that makes the work of oriental nations of such high excellence. The hand and the mind of the Eastern artificer always work together, and the one portrays the changing fancy of the other. Take, for example, the fabric of Japanese workmanship illustrated on page 228. Although the pattern here

Enameled Card-Case: French Court.

is much more uniform than is usual, it will be observed that no two of the scrolls are alike. The artist simply contemplated producing an harmonious whole, which he has succeeded in doing most admirably. How much more satisfactory and enjoyable is such a design as this than the repetition with mathematical accuracy over a surface of some one stereotyped figure! The

one shows a poverty of inventive art, as the other indicates richness and versatility of fancy.

Our illustration on page 229 represents in its full size an ENAMELED CARD-CASE, exhibited in the French Court. This beautiful example of an art long practised, even among the ancient nations, but in later years brought to its highest degree of perfection in Limoges, illustrates the excellence the art

Silver Tazza: Elkington & Co., Birmingham.

still maintains in France. In the centre of the case is a medallion likeness of Diane de Poitiers, and the brilliant and elaborate decoration surrounding the portrait of this beautiful woman is of a style and richness worthy of the time in which she lived. Indeed, the case itself is just such a costly and exquisite toy as this queen of luxury would have loved.

In order that those of our readers unfamiliar with this art of enameling may have a more intelligent idea of the subject, we will endeavor briefly to

sketch its more salient features. The art of enameling is the process of decorating a surface with some vitrifiable material by the process of fusion. This material is colored by the use of metallic oxides, great care and experience in their use being necessary to obtain the desired results; but the scale of colors which the artist has to choose from is not so limited as is generally supposed. Enamel colors are either opaque or transparent, and they are applied in three different ways. Incrusted enamels form the first and great division; the painted enamels come next, and the translucent enamels on surfaces in relief make the third division.

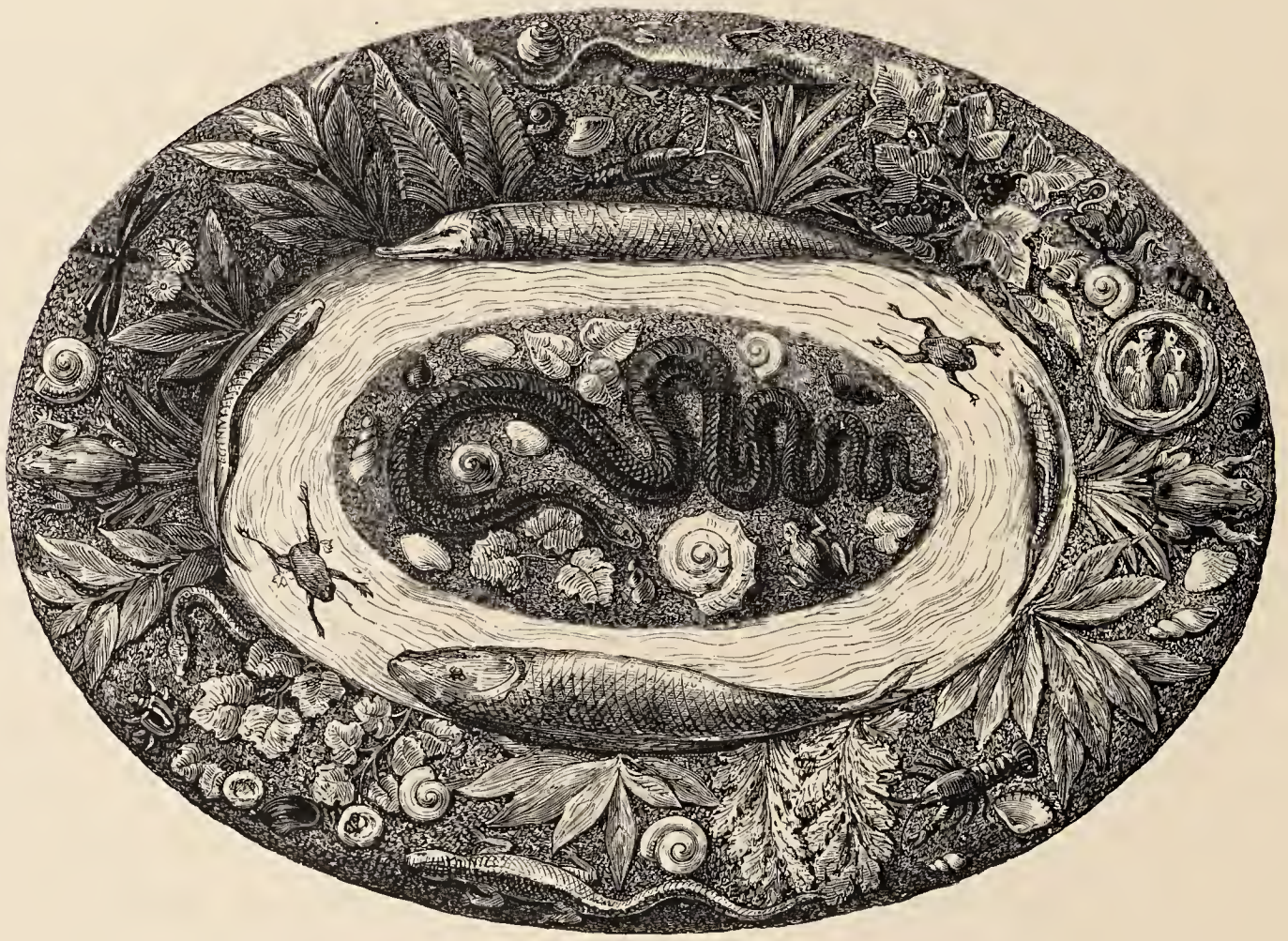
With the incrusted enamels our readers are already familiar in the examples of *cloisonné* and *champlevé* oriental vases that have been illustrated in these pages. But this art was not confined to the East. It found expression in various parts of Europe, especially in France, in many superb ornaments, and the art obtained in Britain at a very early day. Of the two kinds in Europe, the *cloisonné* is by far the rarest and most valuable. Limoges was the chief centre of its production, and many famous examples now remaining in various parts of Europe are traced to the Limousin workmen.

Here, too, the art of painting with enamel colors was first practised extensively and brought to its highest state of perfection. The museums of Europe abound with specimens of the brilliant work executed here during the *renaissance*. So great was the desire to possess articles decorated with enamels, that for a season the goldsmith's chisel was superseded by the enameler's pencil, and dishes, vases, cups and objects of ornament glittered with brilliant colors that concealed wholly or partially the precious metals beneath. A long list of famous names is connected with the enamel-painter's art during the period when it was most practised. As time advanced, new methods of enameling were discovered, and toward the latter end of the seventeenth century the process of painting portraits in miniature was brought to a high degree of perfection. Some of these are perfect marvels of delicacy, both in color and finish. The same processes were applied to the painting of natural objects, such as flowers, birds and butterflies, on trinkets and all kinds of small personal ornaments, and the decoration soon became so fashionable that it was applied to the baser metals.

In an article on Enamels prepared for one of the hand-books for the great

Kensington Museum is this account of the third division of which we have spoken :—

"Translucent enamels upon relief were made by Italian artists about the year 1300, and grew more perfect as time went on, reaching the highest excellence in the sixteenth century. Benvenuto Cellini gives a detailed description of the mode of preparing and applying the enamels. He says that the colors were first to be pulverized and carefully washed; then to be dried, by pressure,



Palissy Plate: Barbizet & Son, Paris.

as dry as possible; the enamel was then to be laid very thinly upon the surface of the relief, in order that the colors should not run into one another. In placing the piece in the furnace, much caution is to be used so that the enamel might approach it gradually and be heated slowly, and afterwards as cautiously watched that it might not run. It was then to be withdrawn, and having gradually become cold, another layer of enamel was applied, and the same process of fusion was repeated. When the piece had again cooled, the enamel was reduced in thickness until sufficiently transparent, and lastly polished."

Fine specimens of the above description are extremely rare and valuable. The subject of our illustration on page 232 belongs to the second division, or a painting in enamel colors—in this instance both opaque and transparent.

Our readers are already familiar with the high character of the display made at the Centennial by the MESSRS. ELKINGTON, OF BIRMINGHAM, through the superb pieces of metal-work from their manufactory which have been illustrated in these pages. No one, looking at that splendid exhibit, made up entirely of objects for ornamental use, could fail to acknowledge the rapid and great advance in art and art-industry that England has made in the last quarter of a century. It was here indeed that we could see the highest art applied to the precious metals. The labors of the artist and artisan were so thoroughly and perfectly mingled—as they should be—that it was hard to say where the skill of the one ended, and the inspiration of the other began. If the other manufacturers of England in their several specialties advance at the same rapid rate in the application of art to the industries as is advancing this representative firm of metal-workers, they will acquire for themselves a position second to none in Europe.

Communion Service: Cox & Son, London.

The illustration on page 230 is another of the Elkington pieces shown at the Centennial. It is a large TAZZA, or dish, profusely ornamented with rich and intricate scroll-work around the rim, and containing in the centre a charming group, executed in *repoussé*, of Venus borne upon the waves by Neptune. We are not aware whether or not this piece is after a design of M. Morel Ladeuil, who is employed by the MESSRS. ELKINGTON, but certainly the vigorous drawing

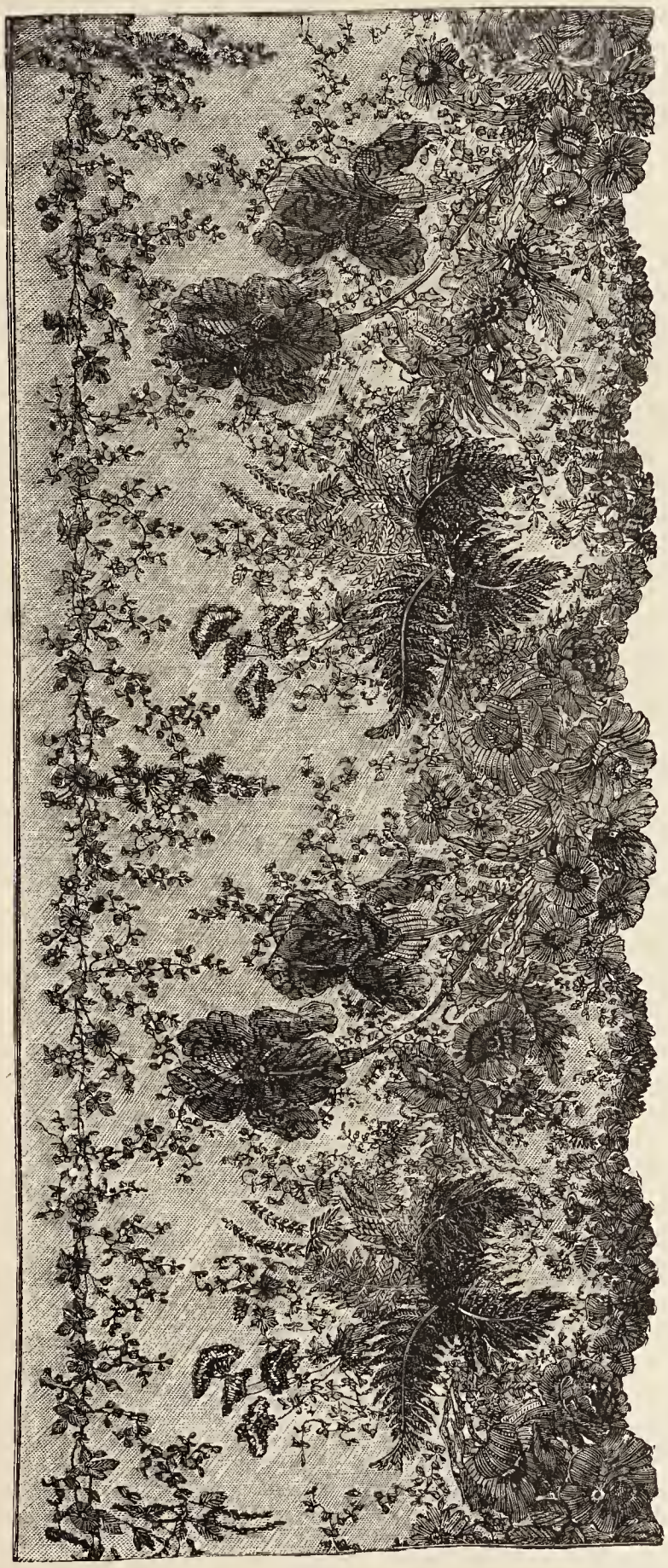
of the sea-king, the graceful pose and beauty of his fair burden, and the attitudes of the pretty, playful loves, suggest the work of a master-hand, and the whole forms a group not unworthy of that great artist.

Another famous metal-working firm, the Messrs. Cox & Son, of London, whose exhibit also has furnished us with several beautiful examples of their art, are represented in the engraving on page 233. This represents a group of ecclesiastical vessels for church ceremonial. Church furniture, by the way, is one of the firm's specialties, and they have achieved great success not only in the making of original designs in these objects, but in reproducing the superb ecclesiastical vessels of former times. England is particularly rich in these treasures, and the English metal-workers have a rare opportunity to study in them some of the finest examples preserved anywhere.

Krug: Count von Klosterel Thun, Bohemia.

The influence of this advantage is seen in the work before us, where the large chalices are, if not reproductions, conceived in the same style as some of the fifteenth century cups. The vessels for holding the wine also are of an antique type, and the general character of the design is carried out in the decoration of the patterns. In the group before us there seems to be three several sets of Communion Vessels—the lower one of simple form and modest size, suitable for and within the means of a village church; and the upper ones of different degrees of richness and elaboration, worthy to decorate the altar of some lordly

place of worship. There seems to be a growing tendency in this country and in Europe, among many religious sects, to revive ceremonial of one kind and another, and to increase the attractions of worship by an appeal to the senses. Without discussing the propriety of this movement, or the grounds of the opposition it meets with in certain quarters, the unsectarian observer cannot but rejoice in the effort to make the house of God beautiful beyond the abodes of men, and his worship in itself glorious and impressive.



Lace Border: Verde de Lisle Brothers, Brussels.

Few objects in pottery are so much valued by connoisseurs as pieces of Bernard PALISSY-WARE. This famous potter and chemist, who lived and worked under the patronage of Henry III, and died miserably in the Bastile for his faith, toward the close of that monarch's reign, invented processes which other potters were unable to discover, and modeled natural objects with a vigor and naturalness quite unequaled by contemporary articles. Of late years the taste for Palissy-ware has revived to such an extent that fabulous prices are paid for genuine specimens, and the market is flooded with more or less

Wood-Carving: Professor Frullini, Florence.

perfect imitations. One of the great firms in Paris, Messrs. Barbizet & Son, have devoted considerable time and attention to reproducing this particular ware, and their labors have been eminently successful. In their exhibition in the French Court at the Centennial, there were pieces in design and execution quite worthy of the great master himself, and some of their copies placed side by side with the originals would deceive even an expert.

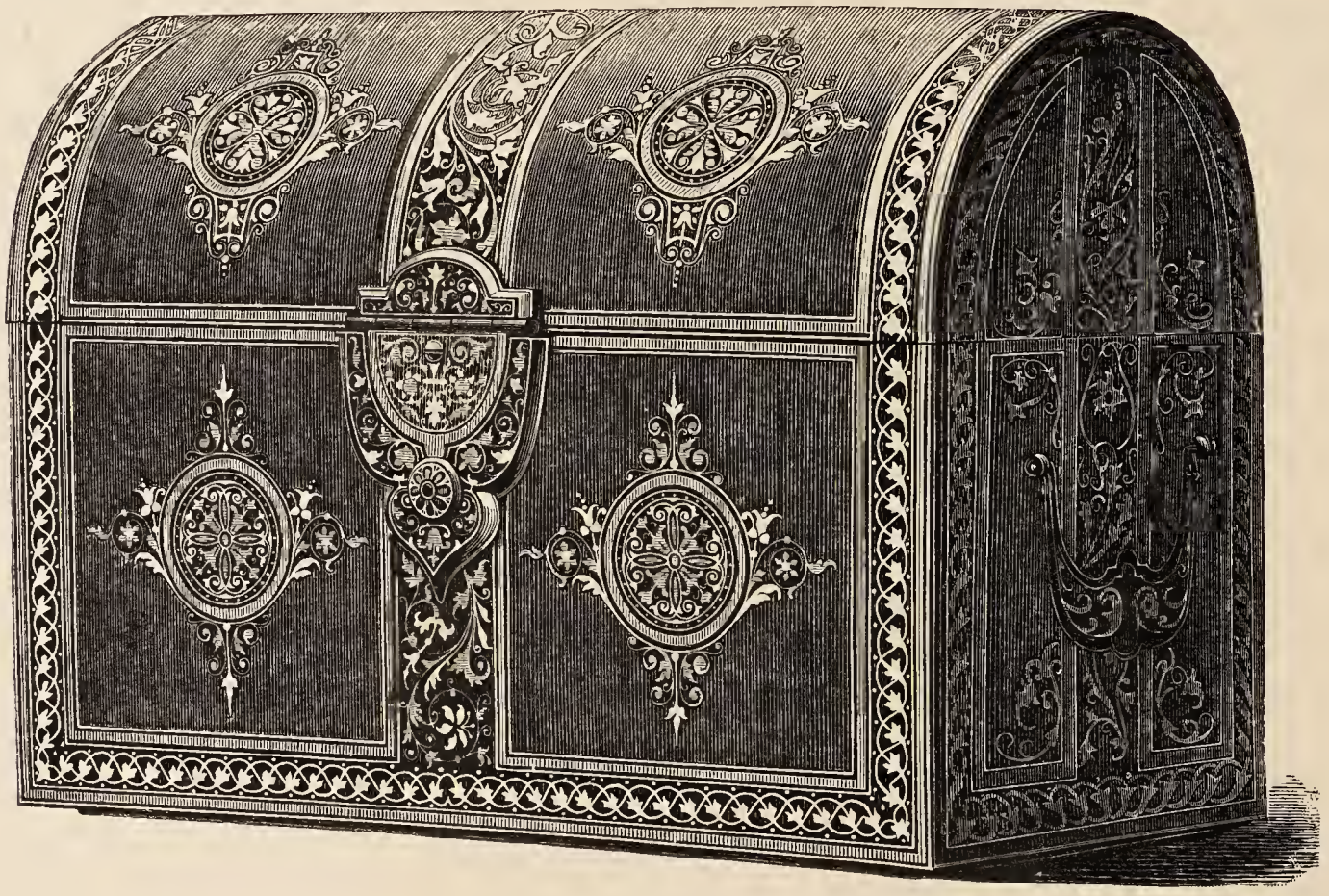
The Palissy Plaque illustrated on page 232 gives an excellent idea of some of the characteristics of the artist's manner. Every natural object modeled by him was copied with remarkable accuracy both in form and color. It was rarely, too, if ever, that he went outside of nature for his themes. His fish and shells were found in the Seine, and his plants are such as grew in his neighborhood and came under his observation. Another favorite style of deco-

ration with him was an imitation of rock-work, in which he excelled, but the name "Palissy-ware" is commonly associated with the style of work seen in our engraving. Here are fish, eels, frogs, lobsters, lizards, and water-bugs distributed among a confusion of land- and water-plants. On one side is a dragon-fly poised above a flower, and on the other a nest-full of birds on the sand. These objects are all executed in low relief, and colored as in nature. It is our impression that this plaque is a copy of one of Palissy's own invention; but even if it is not, it is sufficiently in his style to give an intelligent idea of his peculiar methods of decoration.

Testimonial Vase: Tiffany & Co., New York.

Although Bohemia was noteworthy at the Centennial principally on account of the splendid display of glass made by her manufacturers, the sister industry of pottery-making was not without its representatives. The COUNT VON KLOSTEREL THUN made the most extensive exhibit, chiefly of decorated table-ware, tea-, dinner-, dessert-services, etc. In addition to these there were numerous glazed and colored ornaments in faience, together with vases and figures of a clear, white material resembling parian in texture and finish. The fine KRUG which we engrave on page 234 is of this character. It is an ornamental piece, standing some three feet high, and will be recognized by many as the central object in the COUNT VON THUN'S display. In shape this vessel resembles some

of those antique stone-ware pieces chiefly made in Cologne and other cities of Germany, but commonly spoken of as *gris de Flandres*. Its ornamentation, however, is quite of a different character. On the zone surrounding the body of the vessel is depicted a dance and drinking-revel, where the sport is fast and furious. The figures are executed in relief, and are examples of uncommonly good modeling. The drawing, too, and the grouping of the figures is very well done. Above this zone is a circle of vine-leaves and fruit also in



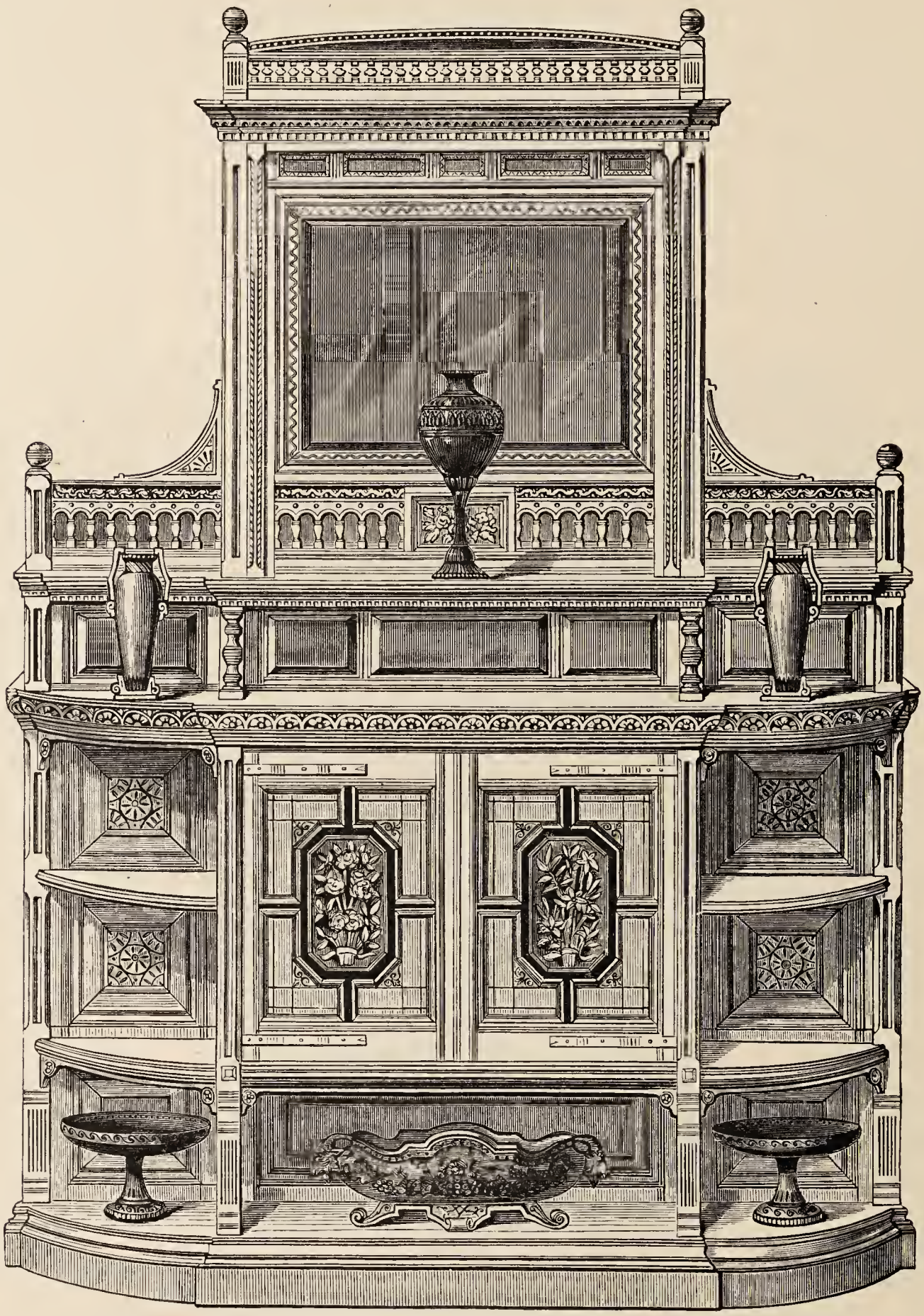
Jewel Casket: Zuloaga & Son, Madrid.

relief, but less raised than the former. Above this again, on the neck of the vessel, is an armorial shield with supporters. Garlands and bunches of fruit and flowers surround it. On the cover, seated upon a kind of throne, with her drapery disposed negligently about her, is seated a female figure, typifying the goddess of the revels. On her knees rests a lute, and in her right hand she holds a goblet of wine. Her hair hangs loosely about her shoulders. The handle has less ornament than any other part of the vessel; yet here, just at its upper junction with the neck, a winged mask is cleverly introduced. Taken as a whole, this vase is an admirable example of the artistic skill and excellence of the Bohemian potters.

As another example of the skill of the Belgian lace-workers, we give an illustration, on page 235, of a LACE BORDER manufactured by VERDE DE LISLE BROTHERS, OF BRUSSELS. It is not possible, in an engraving of a fabric of this kind, to convey any adequate idea of the exceeding fineness of the workmanship, but the richness and beauty of the design have been admirably rendered in the illustration; the profusion and variety of the flowers and ferns suggest the richness of tropical luxuriance, and they have been grouped and intermingled by the artist with charming grace and naturalness. An excellent feature of the design is the way in which the repetition of the groups is arranged, so as to convey as little idea as possible of sameness, and to make the whole harmonious. A fine running vine with delicate tendrils and sprays of leaves depending over the plants below gives a straight and well-defined border, separating the figure from the plain portion of the fabric, and making a finish to the whole.

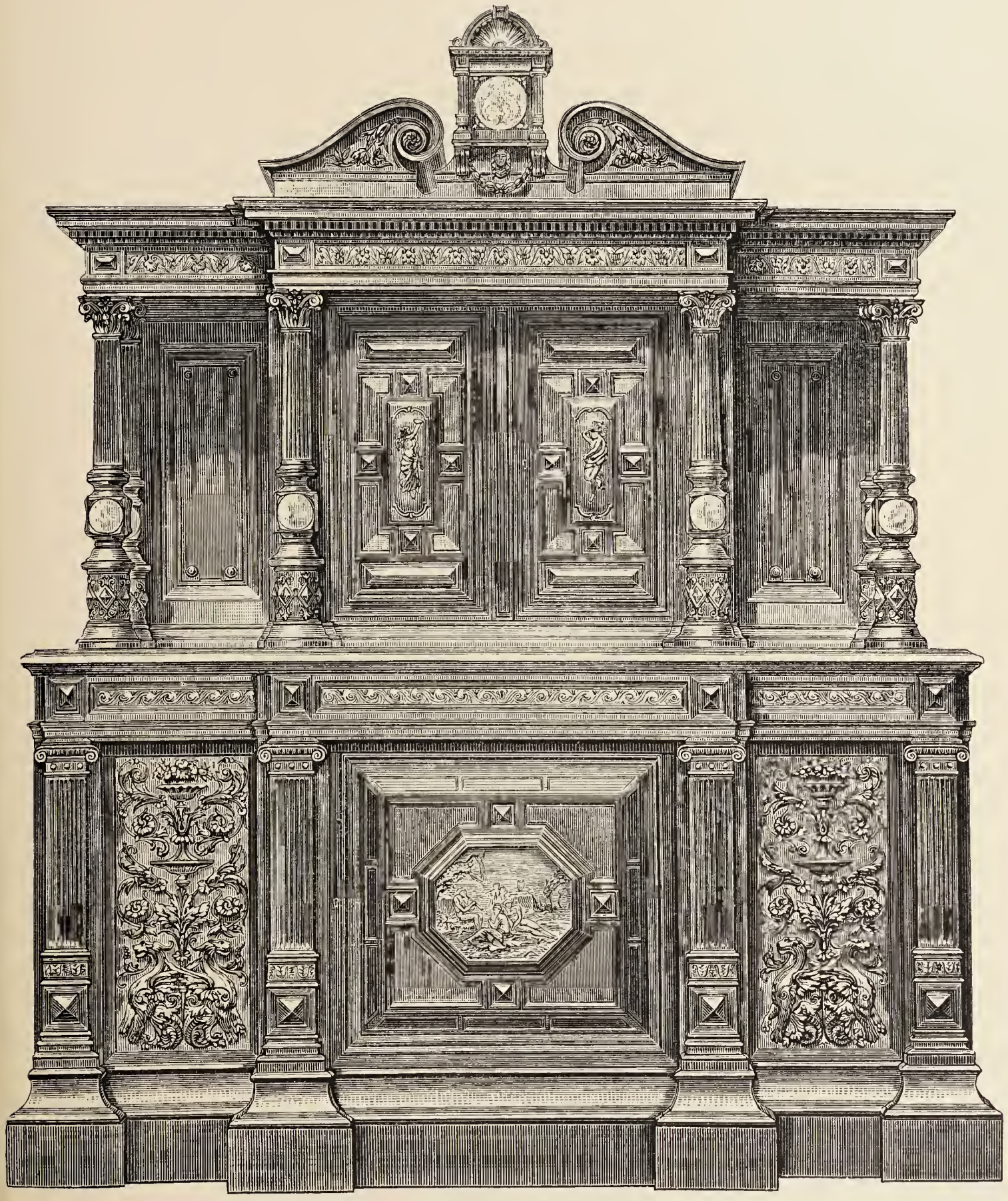
Porcelain Vase: Chinese Court.

A happy blending of realism and fancy is seen in the graceful design in the panel, a specimen of WOOD-CARVING, by PROFESSOR FRULLINI, OF FLORENCE, illustrated on page 236. The artist seems to have had in view the idea of



Buffet: Collinson & Locke, London.

conveying a sense of a tangle of branches of trees and tall grasses by the multiplication of the curves and intricate convolutions of lines with which he has covered the panel. Among these, as in a thicket, are birds, reptiles and

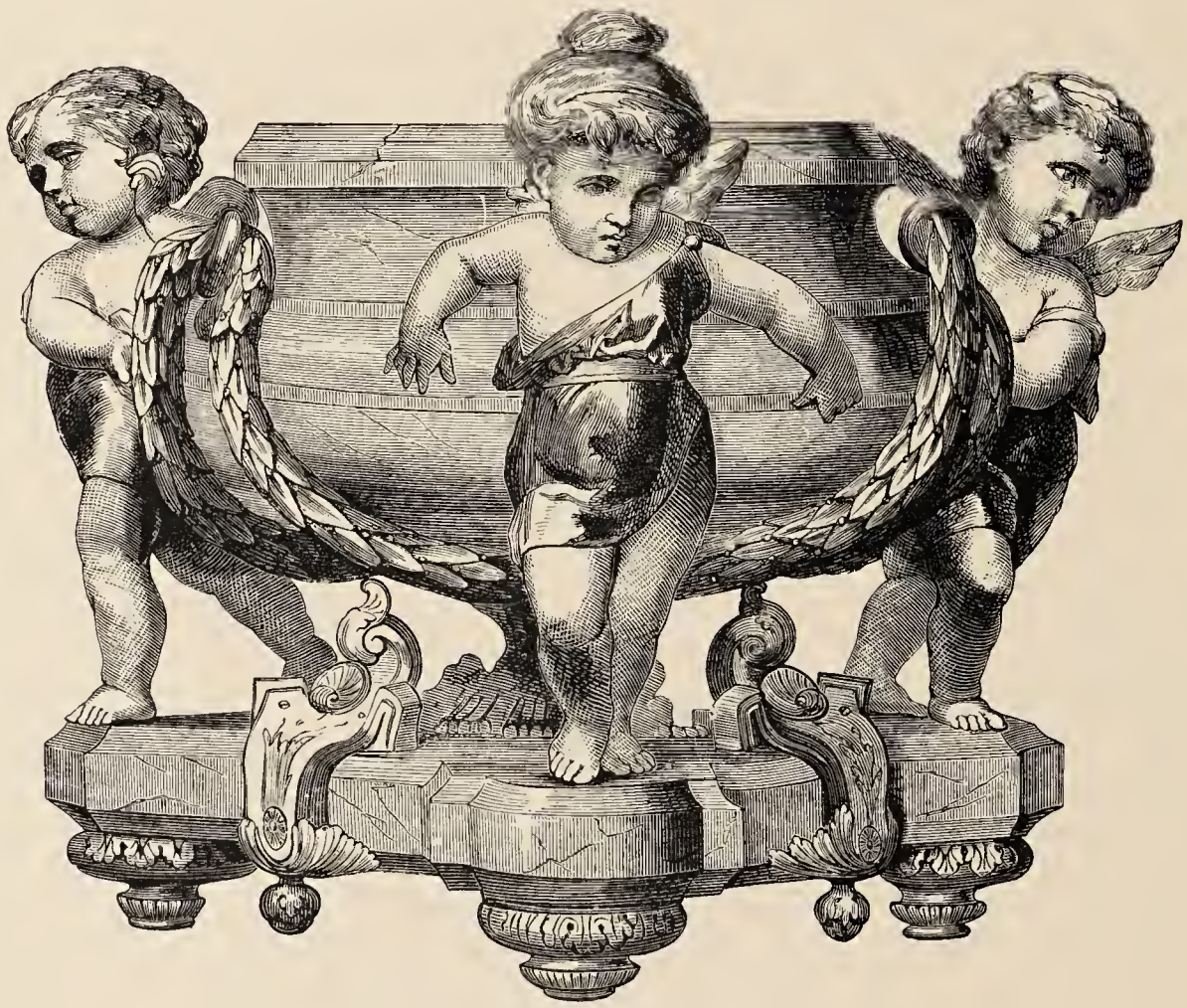


Ebony Cabinet: O. B. Frederich, Dresden.

insects, executed with much spirit and skill. In the centre of the panel is a fanciful figure, half bird, half monster, above which, standing in a shell, is a pretty group of Venus and Cupid. There is something peculiarly free and

vigorous in the execution of this design, which, as a whole, is one of great beauty.

After the Court of Arbitration on the Alabama question, consisting of five members appointed by the Governments of the United States, Great Britain, Italy, Switzerland, and Brazil, which met at Geneva in 1871, had completed their labors, our Government, in recognition of their services, presented each of the foreign commissioners with a service of handsome plate. One of these pieces,



Onyx Vase: French Court.

manufactured by Messrs. Tiffany & Co., of New York, is illustrated in our engraving on page 237. It is a large vase or bowl, elaborately ornamented with scroll-work and figures in relief, and bearing on its side an inscription explanatory of the nature of the gift. At either extremity of the piece are heads of Bacchanti crowned with grape-leaves and fruit, attached as handles to the bowl. These heads are well modeled and finely executed, and the whole piece is a representative and excellent example of metal art-workmanship.

On page 238 we engrave an illustration of a Jewel Casket, manufactured by M. Zuloago, of Madrid, and on view at the Centennial among his exhibits

in the Spanish Court. The great beauty of this elegant affair, aside from the design, is the exquisite finish of the workmanship. The fine Arabesque decorations on the ends of the box are as carefully and perfectly wrought as they could well be, and the delicate inlays in the medallions and border on the front and top and back are without a flaw or false line. The lock is perhaps the most elaborately finished part of the whole, but even here there is a notice-

Porcelain Plaque: French Court.

able absence of the tendency to over-elaboration that too often mars Spanish art-work. The designs for the medallions, it will be noticed, are quite free from exaggeration, and nothing could be simpler than the pattern of the border, yet the effect of the whole is one of extreme elegance.

The large PORCELAIN VASE engraved on page 239 is somewhat different in the style of its decoration from any of the other pieces of Chinese pottery which we have illustrated in the preceding pages. The body, neck and lips of the vase are covered for the most part with a fine vine and flower scroll pattern done in polychrome, but the front portion is occupied by medallions painted

with figure-subjects. What the subject of the upper design is, is uncertain, though it might very well represent a high official beset by rival office-seekers.

Lace Curtain. Heyman & Alexander, Nottingham, Eng.

But the lower picture tells its own story. Here is a grand Mogul seated at his ease, surrounded by his courtiers, watching the performance of a couple of clowns. Standing on the steps just outside of the Mogul's court is the master of the clowns, urging the poor fellows on to renewed exertions, while on either hand, keeping him, the master, to his work, are two courtiers, one expostulating with him kindly, and the other standing silent, with drawn sword, and a most sinister look on his face—an action more potent than words.

This picture is a very good illustration of Chinese pictorial art. It is full of character and action. What could be better than the attitude and expression of the master of the clowns here, or of the pedestrian who has paused in his walk to enjoy their antics? It is not fine art, considered by our canons of good drawing and perspective, but it shows more artistic perception and ability to portray the salient points of a situation, than many European artists possess.

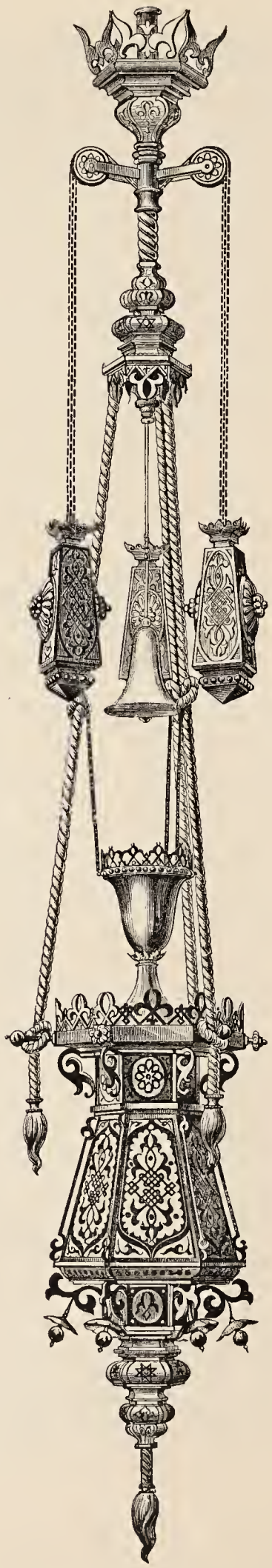
Lace Store: French Court.

The severe plainness in style for furniture that has quite superseded the patterns of twenty-five years ago is illustrated in the BUFFET exhibited by COLLINSON & LOCKE, OF LONDON, in their department at the Centennial. It is after the manner made familiar to us in this country by Mr. Eastlake in his book on Household Art. The benefit of that volume to the people both here and in England has been quite incalculable. It woke everybody up to the evils of glue and veneer and meretricious ornament and dishonest workmanship. It called for good, honest joinery in wood-work, and protested against shams. It showed, too, how much more harmonious and how much more truly artistic a room would appear furnished in the manner he advocated than with the incongruous assortment of fragile bow-legged monstrosities to which the public had become accustomed. It is possible that the enthusiasm of Mr. Eastlake led him too far in his crusade, but in the main his

suggestions were marked with good strong common sense and a correct appreciation of art.

It will be observed that the lines of this buffet are, in the main, straight, following the grain of the wood, and that the detail of the ornament is very simple, and that it is of a character suitable to the material used. In several places tiles have been introduced as panels, thus adding richness and color to the whole. Carrying out this style, in the mind, through a whole set of dining-room furniture, we can hardly imagine a more comfortable or thoroughly satisfactory series, or one better calculated for use as well as ornament.

The engraving on page 241 illustrates an EBONY CABINET, one of the *chefs d'œuvre* of the exhibit of O. B. FREDERICH, OF DRESDEN, in the German Court. Although this fine piece of carving is designed in the *renaissance* style, its



Sanctuary Lamp: Mitchell, Vance & Co.

appearance is more massive and severe than commonly obtains in furniture of that period. The lower portion of the piece is divided into panels by pilasters of Doric pattern, which latter, by their plainness and absence of ornamentation, give greater emphasis to the elaborate scroll-work with which the side panels are adorned. The centre panel, otherwise unornamented, contains a central medallion on which is carved in low relief and with exquisite skill a pastoral scene of a classic character. Here Pan is represented playing upon a flute, while groups of shepherds and shepherdesses are gathered at his feet, listening to the music, while their flocks browse peacefully about them. In the upper portion of the cabinet are two panels containing figures of dancing girls, also carved in low relief and in the same classical style. Indeed all the details of the

work, the frieze below and the entablature above, are conceived in a classic spirit. This entablature, it will be observed, is supported by columns of the more elaborate Corinthian order. There are eight of these columns—four at the back and four in front—the space between being left open, affording a place for the arrangement of statuettes, pottery or any ornamental objects.

The charming group of little Loves, illustrated on page 242, bravely endeavoring to raise and carry the vase which they have garlanded with a rope of leaves, makes a pretty picture. The central figure, quaintly draped—as if such innocence needed drapery—with her hair done up in a matronly fashion, in her serious belief that she is aiding her companions, who really have assumed the whole burden, is a delightful little creature.

Bronze Candelabra: French Court.

For the others, the artist has succeeded admirably in portraying that expression of manly determination and strong endeavor so comical in the earnest play of little children.

When we consider, however, that this group has been carved from an onyx, a hard species of quartz resembling agate, it becomes a matter of wonder that anything so beautiful could be executed in such a hard material; yet the art of the lapidary is one of the most ancient of existing arts, and unlike others of like antiquity, has come down uninterruptedly to the present day. Perhaps no more marvelous proof of the perfection of art-workmanship among the Greeks is to be found than in the engraved cylinders and intaglios and cameos which they executed. Among them we find specimens of such marvelous execution as defy

all attempts at imitation. In most of the museums of Europe, beside these smaller examples, are cups and vases of later date, carved from crystals or from precious stones, illustrating the continuance of the art in another form. In the Louvre are many notable pieces, and it may be the French artist who executed this onyx vase gained his inspiration from the study of that magnificent collection.

The PORCELAIN PLAQUE, illustrated on page 243, which is also a specimen of French art-workmanship, is remarkable for the delicacy of the design and the extreme beauty of its execution. It is very rarely, and only when done by artists of merit who have given long time and study to the work, that pictorial designs executed upon porcelain give thoroughly satisfactory results. So much allowance has to be made for the change of color in the firing and the different appearance that is given by the glaze, that the designer often is obliged to work not on a picture growing to completion under his hands, but on one which is finished after his work is ended, and in which no repairs or after-touches are possible.

Necklace and Ear-rings: Geissel & Hartung, Hanau.

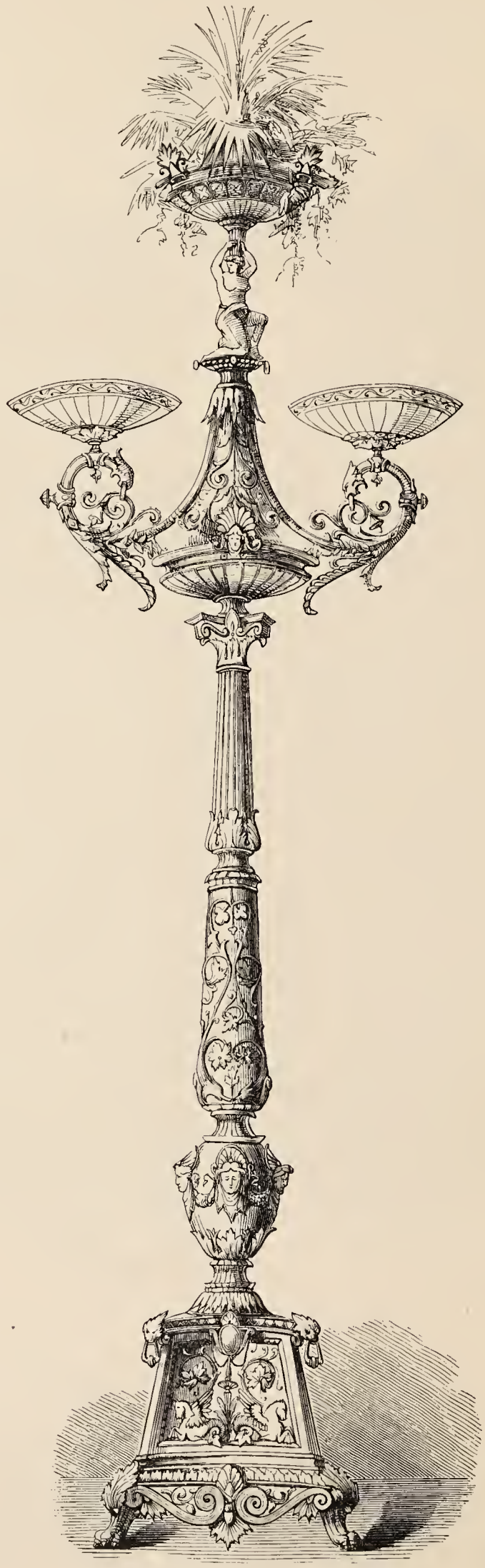
In the design before us the reader can well judge for himself of the beauty and grace of the drawing. The nude female figure is a model of loveliness, and the little cupids disporting about her, laughingly avoiding the playful strokes of her whip, are charmingly graceful in their attitudes. The group is arranged in a flowering branch suggestive of a bower, and the skill with which the leaves have been made to harmonize gives a particular merit to the composition.

Fire Screen: Royal School of Art Needlework.

The coloring of the piece, of which no idea can be conveyed in an engraving, is another of its excellent features. The flesh tints are admirably managed, and are finely relieved against the deep dark background. The border

has been intentionally subdued so as not to distract the attention from the group in the centre, and the decoration is of simple geometric character.

The fashion of using porcelain plaques for wall decoration, though liable to be carried to excess, is a commendable one when practised in moderation. Persons unfamiliar with this use of plaques will be surprised at the admirable effect of a single artistic plate, such as this, properly framed and hung upon the wall. Many pieces that are quite lost among a number of others resting in a cabinet or upon a mantel-shelf can be thus used to excellent advantage in adorning a sitting-room or parlor.

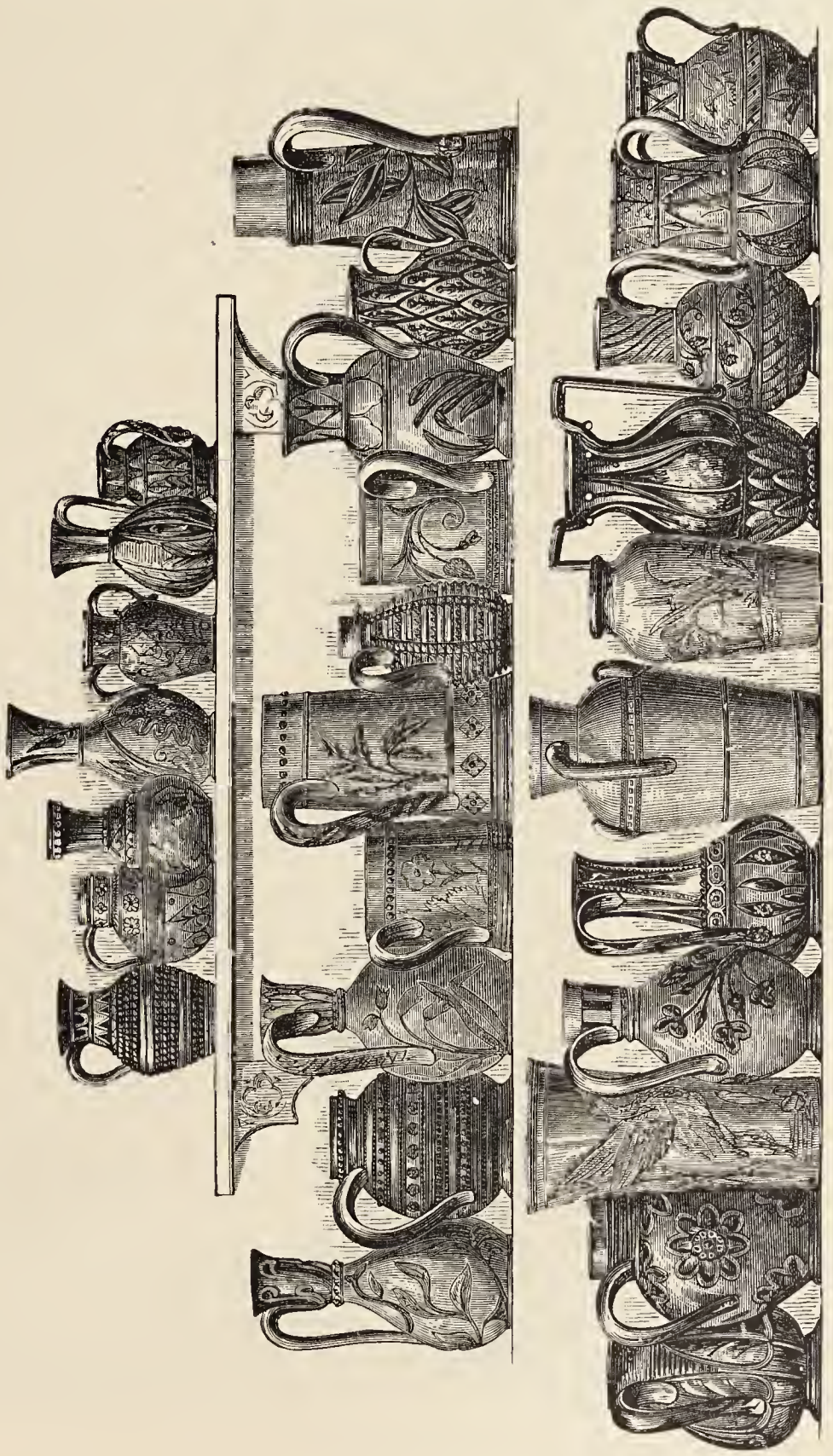


Lamp-post: German Court.

NOTTINGHAM LACE is known over pretty much the whole civilized world, and the manufacture is justly celebrated, for nowhere else has the mechanism for this kind of fabric been brought to greater perfection. The specimen which we engrave on page 244 is an excellent example of this famous work. The fern, which seems to be such a universal favorite with all lace-designers, is repeated here in a very pretty pattern. Delicate woodland vines surround the ferns and form a pleasing tangle in the border.

A curtain of a totally different style, and one es-

sentially French in character, is seen in the next illustration on page 245, which is engraved as a specimen of lace exhibited in the French Court. This curtain, from the pictorial nature of the design, is evidently intended to hang perfectly flat, as otherwise the harmony of the outline would be spoiled. Here, too, about the border we have ferns and wood-plants interwoven with scrolls, but the central subject is a little naked Cupid standing upon a pedestal, and bearing upon his shoulder a sheaf of lilies which he has been gathering. Springing up on either hand and framing him with their leaves are flowering grasses, while above the little fellow are suspended the emblems of his craft, guarded over by birds. It is pleasant to picture in one's mind all the appointments of a room in which such curtains as these would be hung, for unless it was one equally rich in its details, anything so elaborate as these hangings would be out of place.



Group of Doulton-ware: Doulton & Co., London.

The great advance that has been made in artistic metal-working in this

country within late years was excellently well illustrated by the various displays made by the several exhibitors in the section of the United States department

Porcelain Vase: French Court.

in the Main Building devoted to this branch of industry. Our illustration on page 246 represents a BRONZE SANCTUARY LAMP, manufactured by MITCHELL, VANCE & CO., OF NEW YORK, whose department was particularly rich in art-

work of a high order of excellence. The graceful character of the design in this example is well shown in our engraving. By an ingenious piece of mechanism the lamp can be raised or lowered any desired distance, where it is held in position by balancing-weights. In contrivances such as this, ingenious devices for economizing labor, any one who has studied the handicraft of foreign nations and our own must admit that we are pre-eminent. In art-knowledge, that can only become general when we have a systematized art-instruction with abundance of good examples to study from, we are still woefully deficient, but we are convinced that, with the means of study supplied, our workmen will avail themselves of the opportunity with a quickness and aptitude which will redound to their credit.

Lace Curtain: English Court.

No one glancing at our engraving on page 247 would imagine that it was other than a work of art intended for purely ornamental purposes. Only the glass globe rising from the amphora which the girl is balancing on her shoulder betrays the use for which this lovely bronze is designed. Observing this, we know at once that this water-jar poised on her shoulder, is a finished group, and all above the jar is out of place, and in a sense, inharmonious; yet the addition is so evident and so entirely separated from the figure itself as to work its own remedy, and in contemplating the one we pay little or no attention to the other. Especially at night when the gas is lit is this separation the more complete, and for that matter there is no reason why everything not immediately pertaining to the statue could not be so arranged as to be removed during the day, if any one so desired.

Eve Nursing Cain and Abel: Terra-cotta in English Court.

Examples of jewelry, manufactured by Messrs. Geissel & Hartrung, of Hanau, Germany, are shown on page 248, in illustration of the styles of workmanship popular among the women of that country. The necklace itself is of a severely plain pattern, but the pendant hanging from it is quite elaborate. This latter is of finely-chased gold and filigree-work, something after the

manner of the Florentines. In the ear-rings we have specimens of cameo-cutting—one the portrait of a lady, and the other a fanciful subject, a Cupid in a bower of ferns, pouring water through a hollow log.

It is hardly necessary to inform those of our readers who have come with us thus far that the illustration on page 249 represents another of the charming pieces of work designed and executed under the auspices of the ROYAL SCHOOL OF ART NEEDLEWORK, IN LONDON. The design was doubtless made by one of

Thorwaldsen's Ganymede in Terra-cotta: Madame Ipsen, of Denmark.

the artists employed by that institution, after which it was embroidered upon the cloth and mounted as we see it here. A fourth panel, concealed from view in the illustration, but similar in character to the one on the right, completes the harmony of the design, which is in every way admirable.

In a country-house or in any dwelling where gas is not in use, the LAMP-STAND of German manufacture, shown in our illustration on page 250, would be about as pretty and useful an article for the purpose as could be devised. It is light and graceful in shape, and yet of sufficient weight to withstand any ordinary jar. The lamps are raised to a sufficient height to be out of the way and to

give their light the proper elevation, while a broad, shallow vase is added to the top, in which flowers may be arranged to advantage.

Washington Race-Cup: Tiffany & Co.

The DOULTON POTTERY, of which we have spoken at length in a former number, is seen in our engraving on page 251, which well illustrates the variety and artistic excellence of the pieces made by the Company that gives its name

to the ware. The absence of all overloading in ornamentation or of meretricious decoration is particularly noticeable in these pieces, each one of which is eminently satisfactory in itself, and gives evidence of a thorough, intelligent study on the part of the artist who designed it.

Pottery of the highest class, as far as material is concerned and of meritorious decoration, is seen in the PORCELAIN VASE, illustrated on page 252, which was exhibited in the French Court. From the character of the design which covers the body of the piece—a fox and implements of the chase—it is possible that the vase may have been intended as a hunting-trophy, to be presented to some victor who has followed the hounds and been in first at the death.

Pin-Cushions: Royal School of Needlework.

The LACE CURTAIN, from the English Department, shown in our engraving on page 253, illustrates a favorite style of design for the decoration of these fabrics. It has more solidity than the ordinary flower- and fern-patterns, and the effect of the curtain when hanging in folds is heavy and rich. The conventional treatment of the palm-leaf, common in the decoration of Indian fabrics, is introduced here with striking effect; and in addition to these figures, garlands of flowers depending from arches make a pleasing pattern for the centre of the piece. It is well to observe how artistically the designer has preserved a proper balance in this elaborate work, lightening the figure above and massing it in the lower portion.

In a previous number we have advocated the use of terra-cotta for pur-

poses of architectural and ornamental construction as one of the cheapest and most durable materials known, particularly recommending itself on account of the facility with which it can be modeled. Now, however, we would call attention to its adaptability for works of art, especially for those of large size and those liable to exposure to the weather. All garden statuary, fountains and lawn ornaments come within these classes, and can be made in terra-cotta as well, if not better, than in any other material cast in a mould. The great difficulty so far attending the use of terra-cotta for small and delicate objects, such as statuettes, has been the unequal shrinkage of the material in drying, but this is being rapidly overcome, and we may hope soon to see it become a favorite medium of expression for artists.

Clock, Louis XIII: Susse Frères, Paris.

Our illustration on page 254 represents an artistic group manufactured in terra-cotta and exhibited in the English department by the WATCOMB TERRA-COTTA COMPANY. The subject is the famous French statue of Eve nursing Cain and Abel, or "The First Cradle," and the work is a capital reproduction of the original. The beautiful, even tint of a warm fawn color given to the material adds greatly to its appearance and to the beauty of the group.

On page 255 we engrave an illustration of one of the admirably-executed bas-reliefs in terra-cotta in the exhibition of MADAME IPSEN, OF COPENHAGEN, in the Danish Court. This charming group is after Thorwaldsen's fine original—Ganymede, "the most beautiful among mortals." It will be remembered that while the earlier legends tell how the youth was made cup-bearer to the

immortals, later writers assert that Zeus caused an eagle to bear him up to the abode of the gods. Knowing this, we see how the artist has suggested both episodes in his arrangement of the group before us.

The CENTENNIAL RACE TROPHY, illustrated in our engraving on page 256, was another of the excellent examples of silver-work by which the MESSRS. TIFFANY maintained their reputation as art-workers in the precious metals, and excited the admiration of our foreign visitors at the Centennial. We say another, in reference to the several elegant examples already presented to our readers in these pages. Too much credit can hardly be accorded to this enterprising firm for the prestige they gave to the department of the Exhibition in which their stall was located. Their display of artistic work in all the branches of their trade not only redounded to their own credit, but gave evidence of the culture and refinement and wealth of the community where such choice objects could find a market.

Candelabra, Louis XIV: Susse Frères, Paris.

The elegant group before us was made as a substitute for the usual cup prize given at race-meetings, and offered for the 1876 Fall Meeting of the New York Jockey Club, as the gift of Mr. August Belmont. The fortunate winner was Mr. George Lorillard's "Tom Ochiltree."

It was desired, in order to give distinction to the prize in the great racing event of the Centennial year, to connect the two subjects of patriotism and horses, which has been admirably done by the artist of MESSRS. TIFFANY & CO., who conceived the happy idea of introducing Washington in the role—less familiar to us than that of soldier or statesman—of a raiser of fine horses.

Irving, in his "Life of Washington," says: "I have just seen Washington's

horses; they are as good as they are beautiful, and all splendidly trained. He trains them himself."

The figure of Washington is a remarkably sympathetic and expressive likeness. His hand is resting in graceful ease upon the shoulder of the thoroughbred mare, who is leaning over a colt that bears its mother's points of beauty, though undeveloped, and both animals seem under the benign influence of a poetical power that has won their confidence.

This group was a bold attempt in silver-work, and though there are a few

Benvenuto Cellini Helmet: Italian Court.

points in the modeling which we think might be improved, it ranked high among the metal sculptures of the Exhibition.

Examples of the embroidery exhibited by the ROYAL SCHOOL OF ART NEEDLEWORK are shown on page 257. These pieces include cushions, mats and furniture-covers, or, as they are still called in England, notwithstanding the vulgarity of the name, anti-macassars. Each of the designs here shown is thoroughly artistic, and of a character suited to the work. No attempt is made at pictorial representation, the nearest approach to anything of the kind being the birds on the scroll of branches in the central piece. How much more satisfactory this is than the fashion, not yet out of date, of attempting to copy natural objects in Berlin wool! Who does not remember the animal mon-

strosities depicted upon canvass, that we have been expected to admire?—the green dogs with pink eyes, and the beasts that resembled nothing in the whole range of natural history. Neither the heavens above, nor the earth beneath, nor the waters under the earth, contained such things.

A pleasing ornament for any room is the CLOCK manufactured by SUSSE FRÈRES, OF PARIS, shown on page 258. The lower portion containing the clock-works may be taken to represent the base or pedestal of the statue of the

Shield of Henry IV.: Italian Court.

Amazonian warrior which forms the chief ornament. The shape of this base and the ornamentation upon it is of a strictly classical character. It resembles the entrance to some ancient temple, above which this warrior is seated as the type of the goddess of Victory.

Another fine work in bronze exhibited by SUSSE FRÈRES is the CANDELABRA engraved on page 259. This elegant object has all the richness of form and ornamentation of the time of Louis XIV. Male and female masks are freely introduced, and much attention is given to the chasing and detail of the several parts.

The perfection of metal-working, as far as vigorous design and brilliant execution are concerned, was reached by that master workman, Benvenuto Cellini, so liberally patronized by Pope Clement VII and King Francis I. The HELMET engraved on page 260 is attributed to him, and certainly it is a superb piece of work. The only absolutely authentic works by this great artist, known at present, are a gold salt-cellar in the Vienna Museum and three or four cups and medals in the Florence Gallery; and while doubtless among the many

Vase: Collective Exhibit of Gien et Loiret.

thousands of articles treasured as Cellini's work, many are worthy of his chisel, and some are probably by him, yet we cannot be too careful in comparing them with the known pieces before we pronounce upon them.

Another remarkable piece of metal-work is the famous SHIELD OF HENRY IV, engraved on page 261. The chasing is of the most elaborate description, and the design, as will be seen by examining our illustration, contains a multitude of figures. The richness and elegance of the border are particularly noteworthy.

Both these pieces were reproduced in electro, and exhibited in the Italian Court at the Centennial.

The collective exhibit of GIEN ET LOIRET, in the French Court, contained a bewildering display of faience. Examples of almost every style obtaining in France through successive reigns were here to be seen, but the pottery was principally remarkable for the brilliancy and combinations of the colors used.

A fine specimen of this *fabrique* is illustrated on page 262. It is a large oval VASE, very finely modeled, with masks in relief, and decorated on the sides

Faience: French Court.

with medallions containing figure-subjects. The design before us represents a sleeping Venus, whom Cupid is awakening by music. The conceit is a pretty one, and furnishes the artist with a lovely theme for illustration.

Other examples of FRENCH FAIENCE, more or less elaborate, are seen in our illustration on this page. The covered dish shows much elaborateness of detail in the decoration, and the dessert-plate an equal delicacy and refinement of treatment. The handle to the beer-mug, on the left, in its close imitation of nature is in striking contrast with the decoration in the body of the mug.

Cabinet-Sideboard: Cooper & Holt, London.

A capital design, simple yet effective, and thoroughly artistic, is seen on the unpretentious pitcher on the right of the group.

The CABINET SIDEBOARD illlustrated on this page, one piece of a suit of

dining-room furniture exhibited by Messrs. Cooper & Holt, of London, is a noble piece of workmanship. Its height and breadth make it unsuitable for any other than a large room, but, suitably placed, its fine proportions and artistic

Porcelain Vase: Chinese Court.

ornamentation would attract attention. Brilliant gold and color decoration is introduced with great effect into the carved under-surface of the pediment above the mirror, and handsomely painted tiles are inserted in the panels of the doors on either side. In the lower portion, the panels contain rich and elaborate carving

in relief. Various recesses and shelves are arranged for the display of china and plate, and the artist evidently studied the effect that would be produced when the whole was, so to speak, furnished, when making his design.

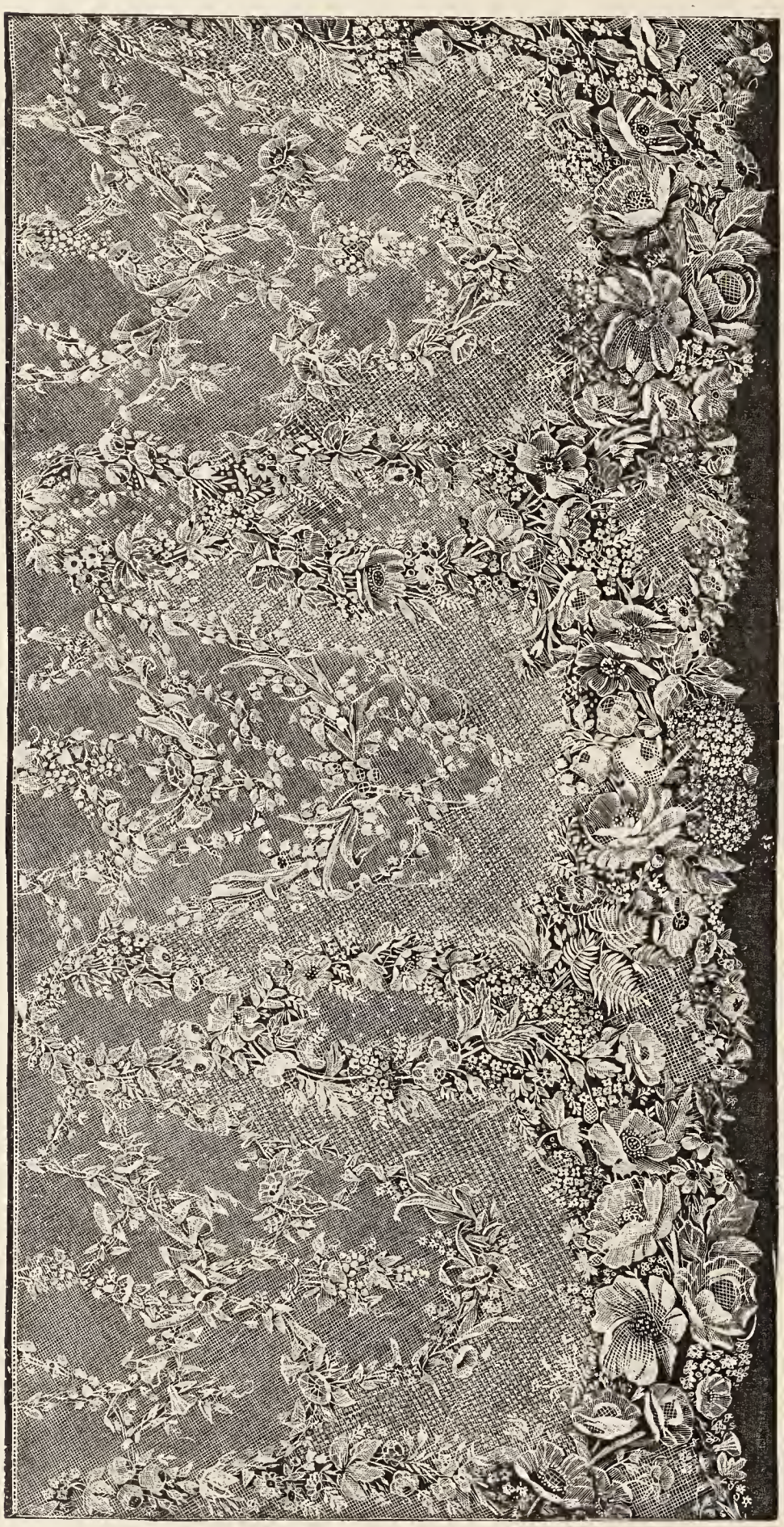
The subject of our illustration on page 265 is a Chinese PORCELAIN VASE, of an unusually large size, fine in quality, rich in color, and of superior finish. These points of excellence would be noted by the dealer or the connoisseur, but to the ordinary observer who has little or no knowledge concerning these matters, the vase is interesting chiefly on account of the novelty of the design. It is the novelty that makes Japanese and Chinese goods so popular with us and Europeans. In form, construction, ornamentation, and decoration, the products of these nations are different from anything produced elsewhere. Particularly are their pictorial representations interesting, because they illustrate costumes, custom and a life that might belong to a different world, so opposed are they to our notions of the fitness of things. Take, for example, the group before us in this engraving. Doubtless to a Chinaman these figures appear all right, but to us they seem all wrong. The idea of men being arrayed in such garments as these, and their hair done up after that fashion! Even with their sex evidenced by the moustachios, we are half inclined to doubt the manhood of these individuals. If the Chinese mythology included three Graces, we should be inclined to think that the artist, a Celestial satirist, was indulging his humor by picturing those beautiful women on a masquerading escapade. Nevertheless, for aught we know to the contrary, they may be three worthy citizens taking a Sunday afternoon walk in their best clothes, or the three mightiest potentates of the empire, before whom even the cats of China blink. Yet let the reader consider for the moment that, allowing for a little extravagance in the detail, we have before us a representation of costumes worn of men, as accurately portrayed as the fashions on the plates in a tailor's window. Look at the man on the left with a small parasol stuck into his head. Observe the central figure: what a *coiffure* he has made already, and apparently he is still at work on his back hair. The third man seems to be less of a dandy than his companions, yet even he has made his modest pigtail attractive by twisting it into an artistic knot. As for the costumes, Mrs. Swishelm herself could not invent or name such garments. And yet these fashions are the expression of the oldest civilization on the face of the globe, of a people who have always prided

themselves on their clothes! According to the Christian belief, the first mother covered her nakedness with a fig-leaf, but the Chinese Eve discovered silk and wove a fabric of the thread and made a fine gown for herself. Blessed among women should she be!

Yet suppose, having had our laugh at these heathen, we look for a moment

Furniture Silk: French Collective Exhibit.

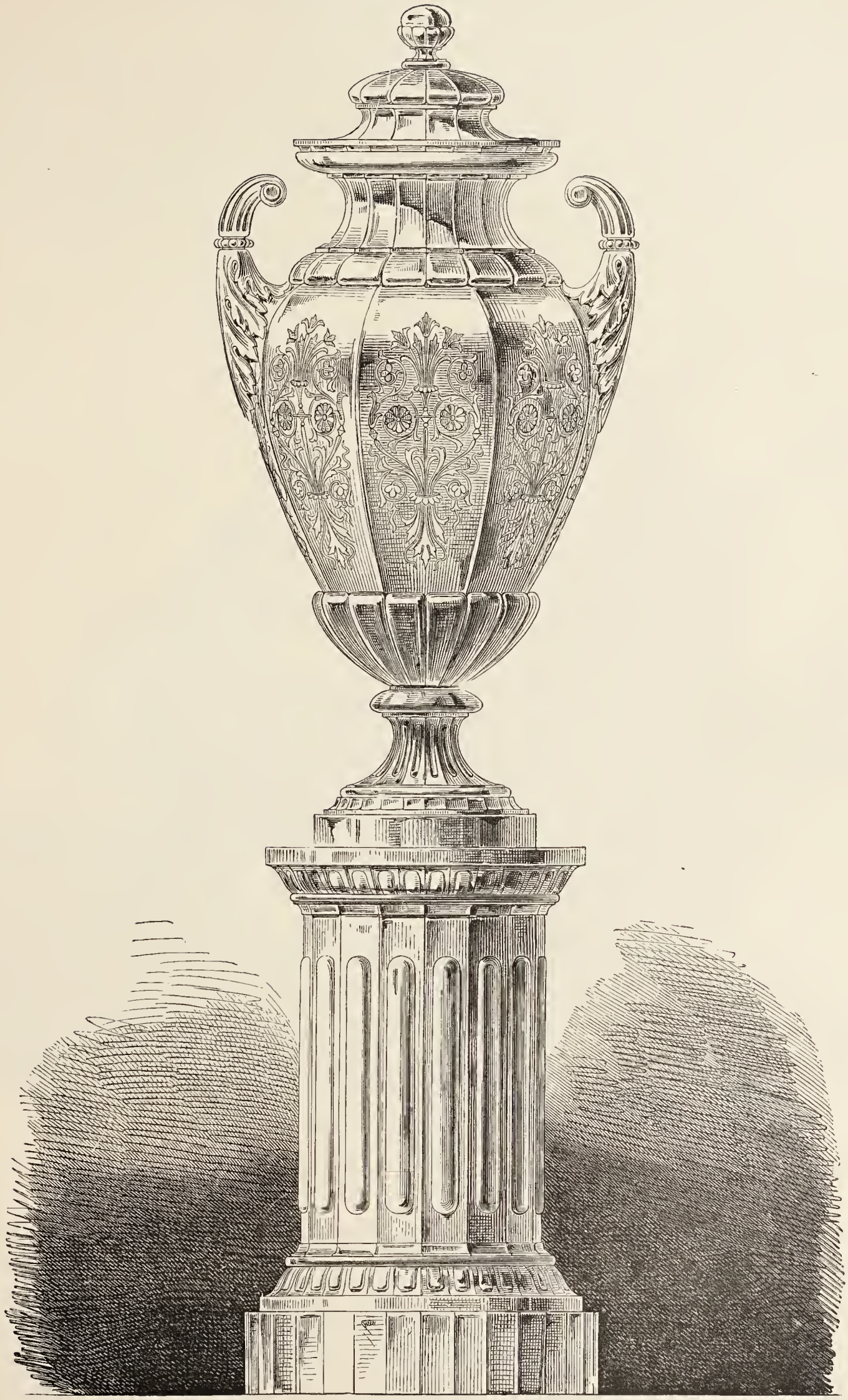
at our manner of dressing. It does not require a Chinese standpoint of view to see that much of it is monstrous—not the men's fashions (they are well enough), but those of the women. Do not they torture their feet and contract their waists and place protuberances on their persons and erect constructions on their heads—in short, deform their natural shapes? The female form is our type of beauty, and the Greek idealists are recognized as having given it most perfect expression in their statues. One—a man at least—would think, therefore, that women would endeavor modestly to clothe themselves so as to preserve



Lace: Collective Exhibit of Brussels.

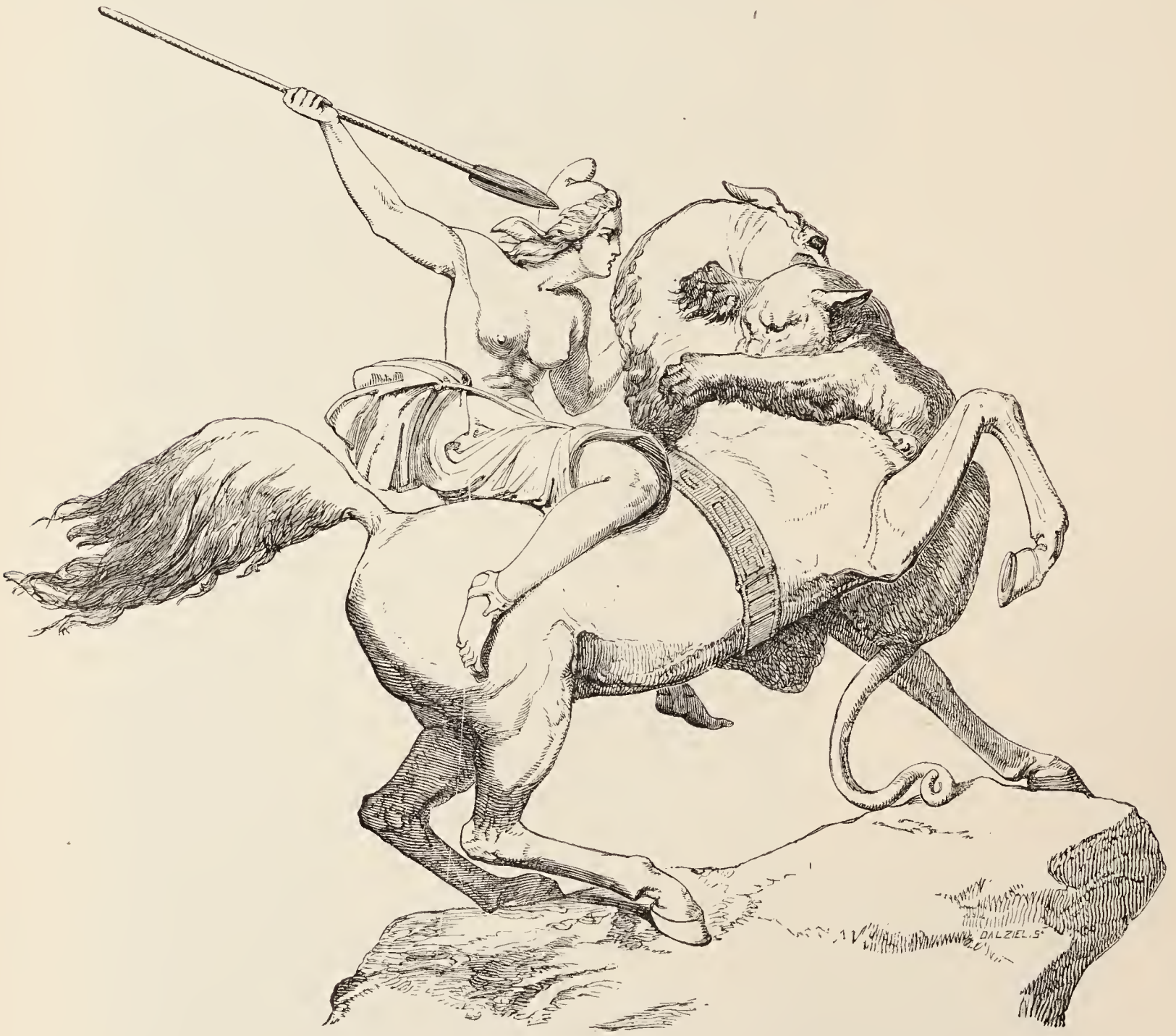
if not to betray the symmetry of a perfect figure. If not well formed by nature, it is reasonable and perhaps justifiable that they should resort to art; but to go beyond this, to mar their own beauty,—that women should do this would be inconceivable, if we had not the evidence always before us. Few women pause to consider how these changes of fashion from the simple robe girdled at the waist have been brought about; why one portion of the figure is exaggerated and another contracted. We think perhaps it would be better if they did; for certainly no intelligent woman can do this without discovering that sensuality is a governing motive.

On page 267 we illustrate two different patterns of FURNITURE SILK from the Collective Exhibit in the French Court. They prove that, notwithstanding the advice of would-be reformers of taste, the public continue to demand the very designs in textile fabrics which they



Bohemian Glass Vase and Pedestal: Lobmeyr, Vienna.

declaim most against. These instructors say that to have wreaths and garlands of flowers, imitating nature, woven into a carpet which we walk over, or into a fabric which we sit down upon, is quite contrary to the canons of æsthetic art; yet, for all that, the best skill of French workmen, the most artistic work-



The Amazon (bronzed zinc): J. L. Mott Iron Co., New York.

men in the world, continues to be employed in weaving just such patterns into the finest and most costly fabrics used for the purposes named.

The example of LACE which we engrave on page 268 from the collective exhibit of Brussels differs only in elaborateness and pattern from the specimens already illustrated. Like those the fancy of the designer here has brought

flowers and ferns together in beautiful groupings, and the skill of the lace-worker has been taxed to reproduce the pattern, thread by thread and stitch by stitch, in the delicate network which keeps the figures in the place.

It seems hardly credible that the elaborate VASE AND PEDESTAL, seen in our engraving on page 269, is made entirely of glass; yet if the reader saw

Repoussé Plated Ware: Reed & Barton, Taunton.

or could have seen the original, he must have wondered the more that all that richness of color, gilding, high relief, ornamentation, and delicate tracery of intricate design could be produced in that material. It may well be considered a triumph in that branch of manufacture. As we recall the remarkable exhibit of LOBMEYR, OF VIENNA, from whose collection this vase is illustrated, it seems as if every known method of manipulating glass had its example there. But

a chief place in the display was given to the exhibition of the manufacturers' latest discovery, the method of enameling a transparent glass of one color upon another, so that, by grinding down the outer covering or cutting through to the under surface, a variety of hues and colors especially brilliant and pleasing was produced. This vase is an example of this process.

The famous statue of "The Amazon" engraved on page 270 is a favorite subject for reproduction in marble, bronze, the precious metals, and clay. It forms the ornamental portion to innumerable clocks, paper-weights and trifles for the desk or mantel-shelf. We have even seen a gas-burner attached to the

Faience: Indian Court.

Amazon's cap, but in the present instance the group is intended to serve only its original purpose. It has been cast in zinc and bronzed by the J. L. Mott Iron Co., of New York, and is a very excellent piece of work. The muscles of the beasts, the expression of the woman, the texture of skin, hide and hair, each and all have come out remarkably clear and distinct.

The group of plated ware from the exhibit of Reed & Barton, illustrated on page 271, shows to what perfection this branch of manufacture has been brought in this country. As far as beauty of form and elaborateness of design go, no greater amount of work or more careful study of detail could be desired even if it was to be expended upon a service of solid metal.

Several examples of the curious faience of India, exhibited by the British

Government, are shown in our illustration on page 272. The decoration upon them is simple, yet highly artistic, free in execution, and admirably suited to the material and the object itself. The forms are all graceful, the most pleasing, perhaps, being the flat vase with tall, lily-shaped neck. The incised work shows the scrolls, palm-leaves, etc., which we commonly see on oriental textiles.

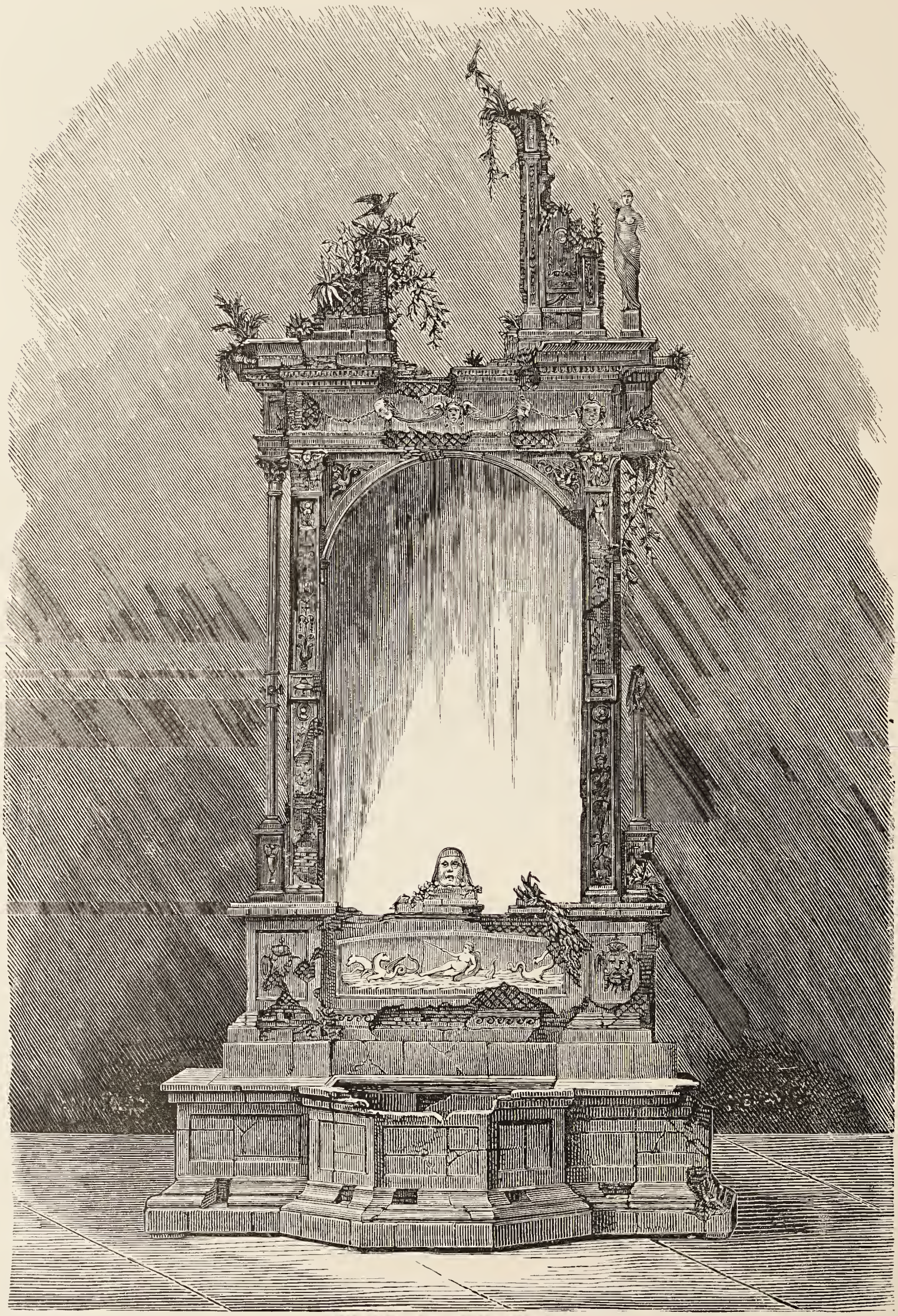
Another curious ware is the faience of Russia, characterized by a certain angularity of outline and a tendency to follow geometric lines and patterns in decoration. The colors usually are uncommonly rich and well contrasted, the effect being heightened by the separating line between the colors being depressed, as if the pattern had been traced by a fine blunt instrument upon

Faience: Russian Court.

the green ware. This makes little cushions, which, when colored, give to the whole an appearance suggestive of the squares of worsted on canvass-work. We engrave a number of specimens of this ware on this page, the group being made up from the display in the Russian Court.

On page 274 we engrave an illustration of a very remarkable example of wood-carving exhibited in the Italian Court. It is the work of Signor Luigi, a famous artist in this particular, and will be found well to repay careful examination. It was a very bold conception thus to make a portion of a ruin, overgrown with clinging and climbing plants, the *motif* for a piece of furniture, yet the artist has treated his theme with consummate skill. All the details have been carefully studied and are elaborately wrought, the evidence of a master-hand being visible in every mark of the chisel.

Many of our readers will recognize with pleasure the subject of our illus-



Wood-Carving. Italian Court.

tration on page 276. It is the famous BRYANT VASE presented to the honored poet by his friends and countrymen on the eightieth anniversary of his birthday. It is undoubtedly one of the most important pieces of artistic silver-work ever produced in this country. Both for its intrinsic excellence and the pleasant associations surrounding it, it fitly occupied a central place of honor in the Main Building at the Centennial, and perhaps no single object in the whole American Court attracted more attention than this testimonial to William Cullen Bryant.

The vase was designed by Mr. James H. Whitehouse, chief artist of MESSRS. TIFFANY & CO., OF NEW YORK, by whom it was made. We cannot do better than give the reader the artist's own description of his work:—

"It is intended to symbolize Mr. Bryant's life and character through the medium of a classic form, covered with ornamentation drawn from nature, and suggested by his works. As in Mr. Bryant's career there has been nothing inharmonious, all the details of this design are made subordinate to the simple classic outline which is preserved unbroken. The heavier lines of the fretwork are derived from the apple-branch, which suggests that while Mr. Bryant's writings are beautiful, they also bear a moral: as the apple-tree blooms with a beautiful flower in the spring, and in the autumn bears fruit. Poetry is symbolized by the eglantine, and immortality by the amaranth, which is said never to lose its fragrance, and these are blended with the lines formed of the apple-branch.

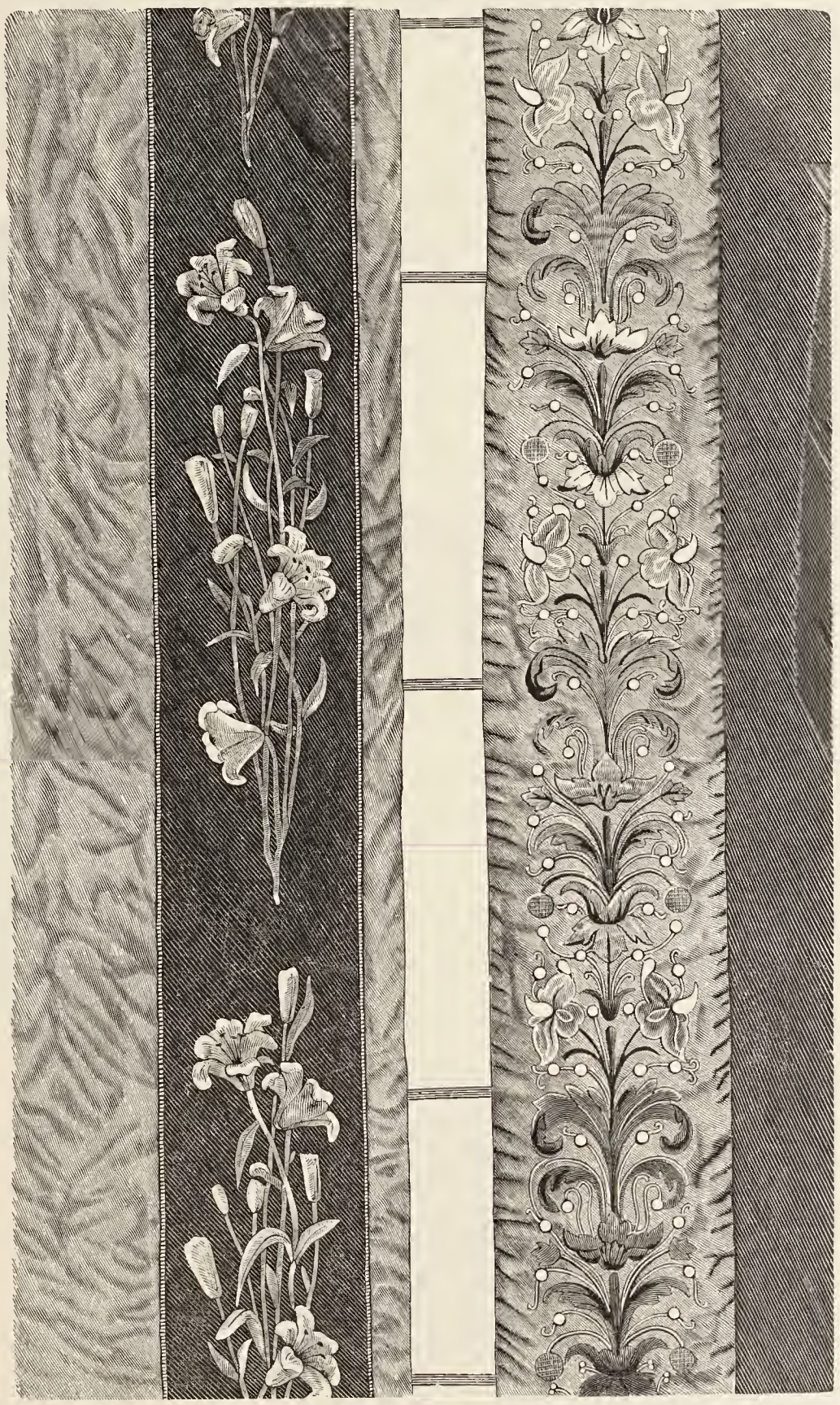
"The primrose, for early youth, and ivy for age, form a border directly above the handles. Encircling the neck at the narrowest part, the immortal line, 'Truth crushed to earth shall rise again,' is rendered verbatim, the beginning and end being separated by a representation of the fringed gentian, which Mr. Bryant remembers in one of his poems as always pointing to heaven. Eras in the poet's life are illustrated by a series of bas-reliefs. In the first, as a child, looking up with veneration at a bust of Homer, to which his father points as a model. The second shows him in the woods, reclining in a meditative attitude under the trees. Between the first and second of these medallion pictures is a portrait of the poet, laurel-crowned. Above this, the lyre for Mr. Bryant's verse; and beneath, the most primitive printing-press, for his connection for over half a century with the 'New York Evening Post.' In a smaller

medallion is the waterfowl, used by Mr. Bryant as an emblem of faith, and introduced for that reason as the key-note of his writings. The ornament around the lower part of the vase is of the Indian corn, with a single band of cotton-leaves, and at the foot is the water-lily, emblematic of eloquence, for Mr. Bryant's oratory. The handles are in harmony with the general outline, but subordinate to it, and as humor is a subordinate element in Mr. Bryant's writings, it is suggested here by the American bob-o'link for the humorous poem of 'Robert of Lincoln.' The two great American staples are introduced to complete the ornamentation of the handles —the stalk, leaf and grain of the Indian corn on the inside, and the bud, flower and ripened boll of the cotton on the outside. On the base which supports the vase is the lyre for verse, which with the broken shackles point to Mr. Bryant's services in the cause of Emancipation.

The Bryant Vase: Tiffany & Co., New York.

"The designer has introduced symbols from nature, as the fittest means

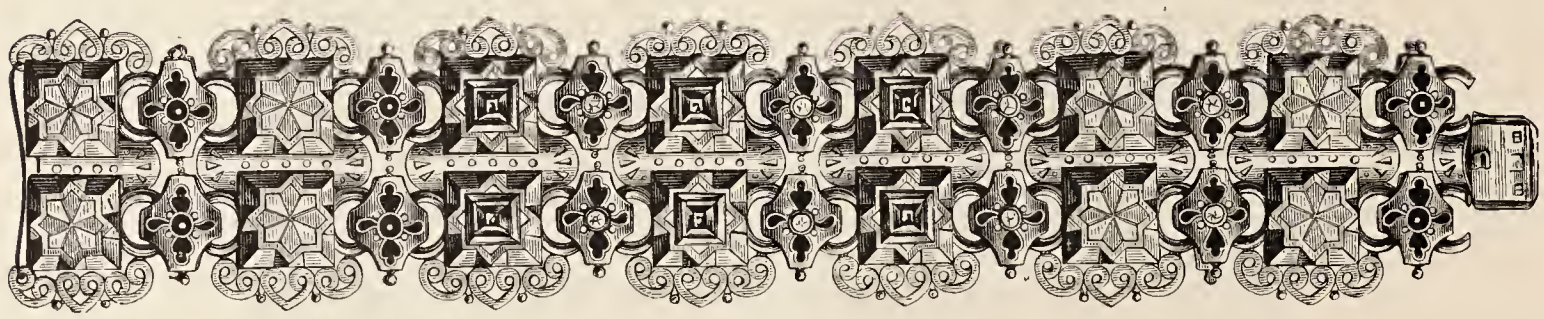
of illustrating the life of an author whose writings teem with symbols drawn from the same source, and has intended to bring unity out of elaborate detail."



Curtain Borders: Royal School of Art-Needlework.

On this page we engrave two examples of CURTAIN BORDERS from the exhibition made by the ROYAL SCHOOL OF ART-NEEDLEWORK. The first of these

is an exceedingly effective piece of work. The flower-sprays are embroidered on a dark, chocolate-colored cloth, admirably suited in tone to the colors of the leaves and blossoms of the plant. The design, too, is a beautifully graceful one, copying nature, but treating the subject in such a manner as to be in no way offensive to good taste. The narrowness of the border, moreover, precludes the probability of the unity of the figures being destroyed by folds in the curtain. The second design is of an entirely different character, the theme being a succession of plant-tendrils and flowers conventionalized to such an extent and located in such a manner as to suggest the Pompeiian borders which are familiar to all designers. In this as in the other example, the pattern



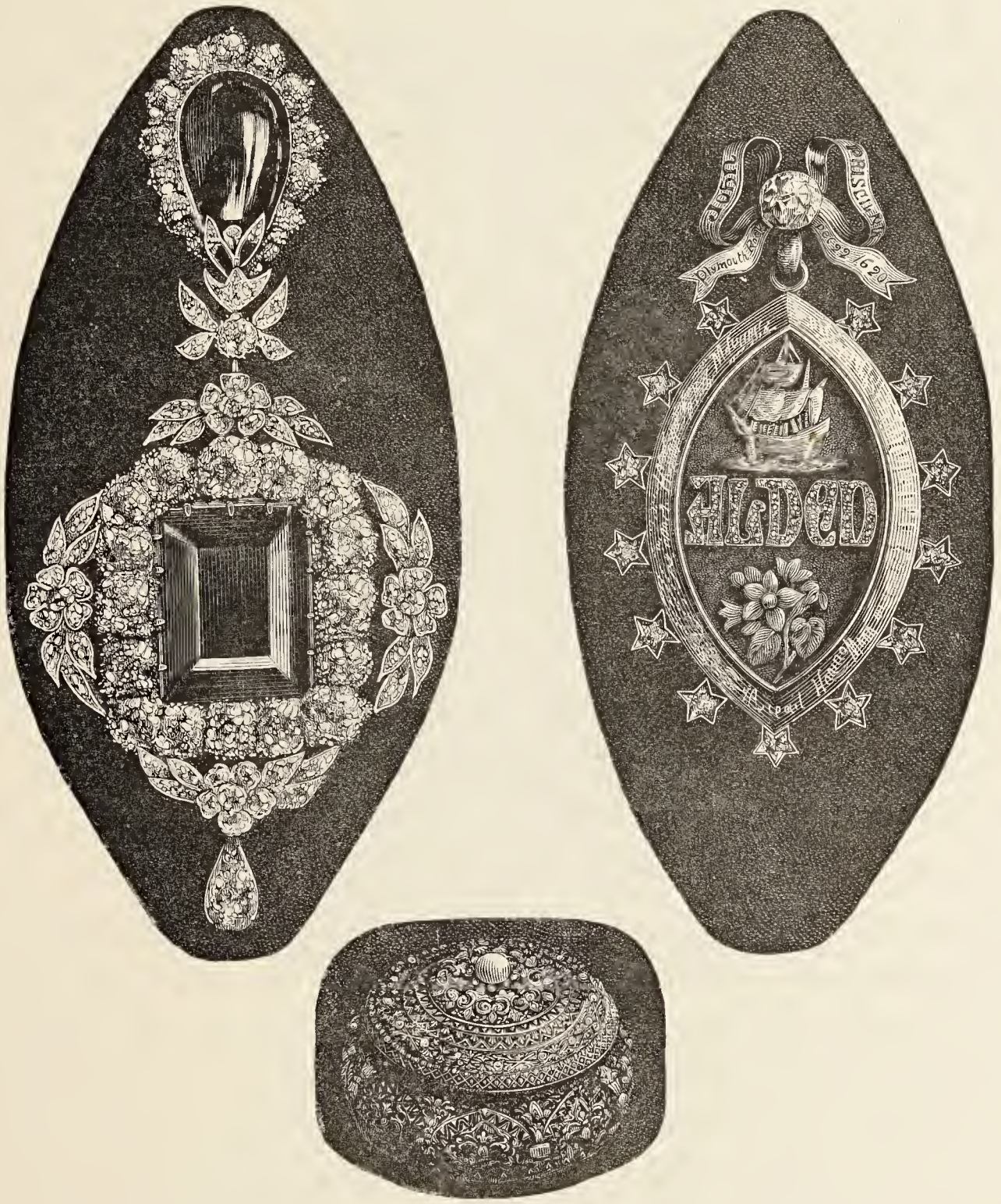
Bracelet: Krumbugel, Russian Court.

has been wrought in the fabric with threads of different colors, or true embroidery.

We are pleased to see that this kind of work is finding favor among the women of this country, and that already schools of design and needlework are forming in several of our cities. We believe that as soon as the absurd prejudice, too long obtaining among the decayed gentility classes in this country, against manual labor for women has been overcome, that a new and powerful impetus will be given to the progress of all branches of decorative art among us. The field is an extensive one, and one peculiarly fitted for women to work with profit and success.

In this connection we cannot refrain from calling attention to a circumstance that recently came to the knowledge of the public. It appears that a certain well-known citizen of New York, who had become involved in difficulties of one kind and another, fled to Europe, and an investigation of his affairs discovered that his family were reduced from wealth to poverty. But during the days of his prosperity he had taken care to provide for his children in a

manner that no mutations of fortune could rob them of. Each of his daughters, beside receiving the education usual for girls in their position, had been taught a trade or profession. One was a competent drawing-teacher, another a thorough



Jeweled Pendants: Starr & Marcus, New York. *Bonbonniere: M. Boucheron, Paris.*

musician, and the third had learned the trade of a milliner; so that they had the means of making an honorable livelihood secured to them at a time when nothing was more improbable than that they should have to have recourse to

these means. The moral of the story is plain, and that it is worth heeding is evidenced by the thousands of helpless, poor women brought up in luxury now living on the charity of their friends. It is not their fault, poor creatures, that they are in this pitiable state of dependence, but the fault of their parents. If the future of girls was studied and provided for with the same care as that of boys, we should hear less talk of woman's rights and radicalism.

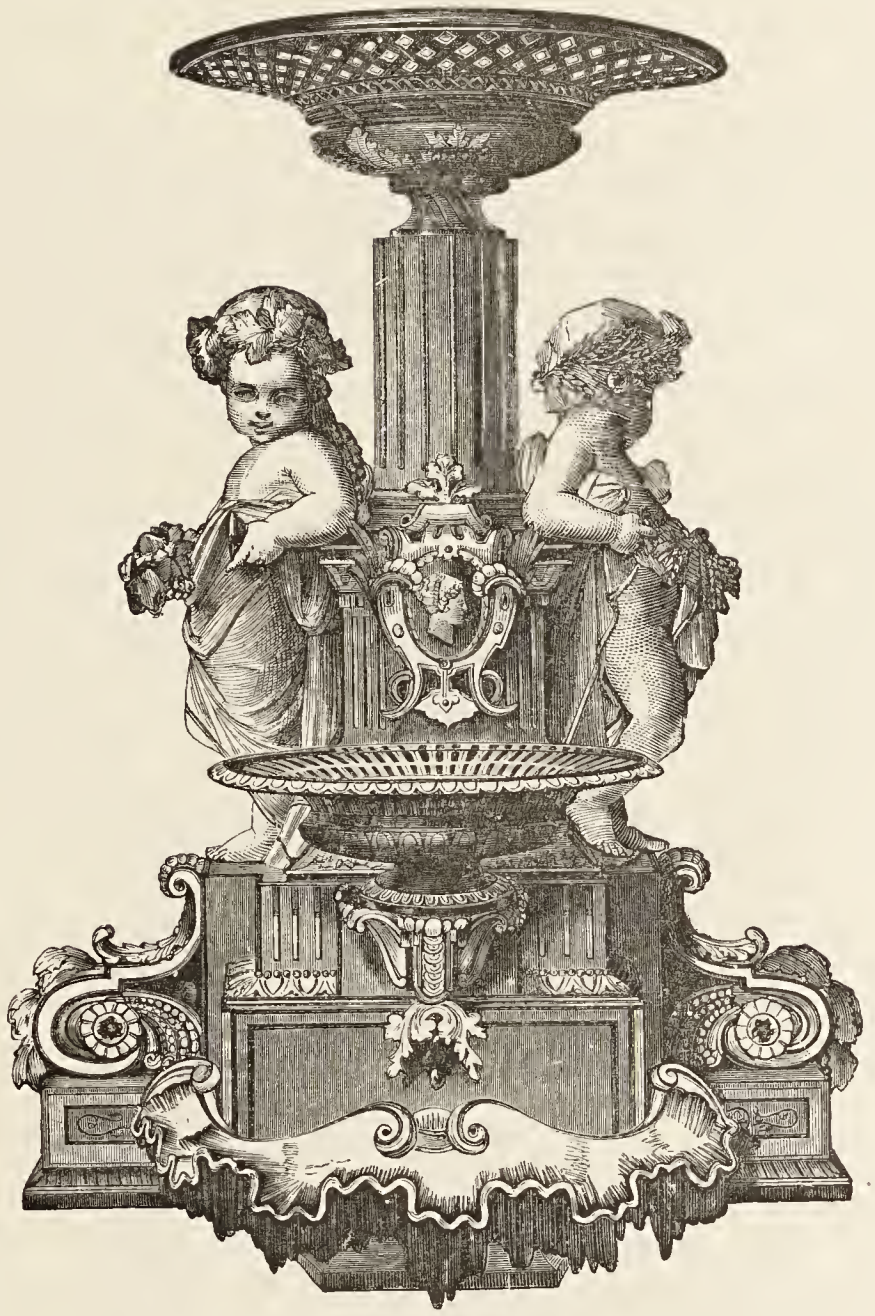
The richness of the display of gold- and silver-work and jewelry in the Russian Court at the Exhibition was a subject of common remark. The col-

Faience: Russian Court.

lection was of bewildering magnificence, and of a splendor which, though the term is questionable, is best described as barbaric. The minute and exquisitely delicate workmanship, such as obtains in the south of Europe, was not seen here to any extent, the characteristic of the work being heavy masses of gold, brilliantly enameled, gleaming with jewels—vigorous, bold designs, and strong contrasts and massing of color. On page 278 we give an example of Russian jewelry and goldsmith-work—a BRACELET—from the exhibit of KRUMBUGEL, OF ST. PETERSBURG. It is an excellent illustration of the several characteristics which we have noted.

As specimens of the proficiency of our own countrymen in the jeweler's art, the two pendants seen in our engraving on page 279 are notable examples.

In the first, around the superb central gem, are grouped wreaths of flowers composed of jewels set in the finest possible frame-work of gold. In the second, the art of the chaser and engraver has been employed to produce a memorial jewel worthy of the event inscribed in the legend. Both of these princely ornaments were made by MESSRS. STARR & MARCUS, OF NEW YORK, and exhibited in their display at the Centennial. Compared with the exhibits of the same character made by foreign manufacturers, these and like jewels shown by our American firms proved that in this particular we could fairly compete on equal terms with European designers and artisans.

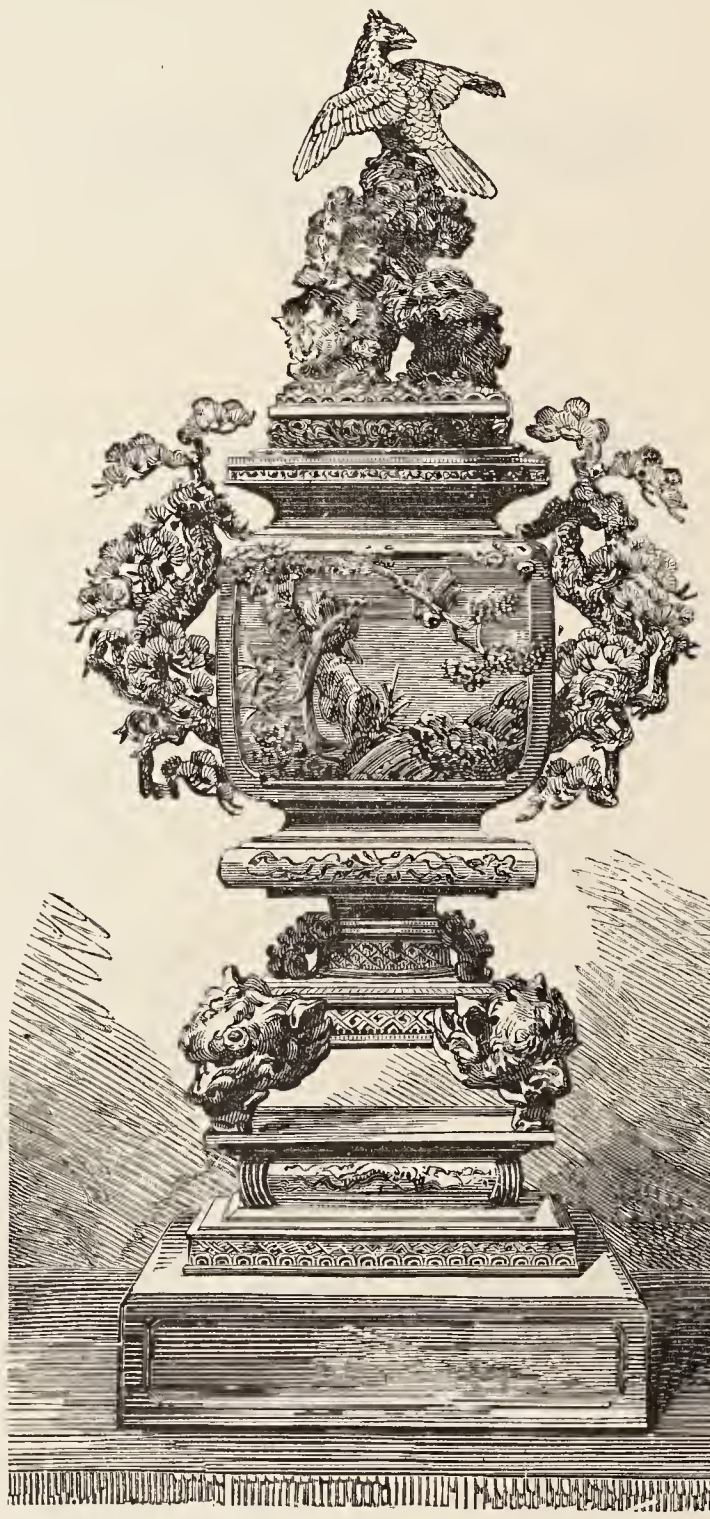


Majolica Faience: Daniell & Son, London.

The BONBONNIERE, the lowermost of the group on page 279, is a charming toy, as costly as it is small, exhibited by M. BOUCHERON, OF PARIS. It is hardly larger than a silver dollar, yet it is made of gold, and is profusely jeweled and enameled with various colors worked into a design of curious minuteness and intricacy. It is a trifle for princes to hesitate over, for poor men to wonder at, and for women to desire.

The fondness for strong and bright contrasts of color noticeable in the art-workmanship of Russia is peculiarly visible in the decoration of their pottery. In the examples shown on page 280 of RUSSIAN FAIENCE, the enamel colors, principally red, blue, green, and yellow, are arranged to give the highest contrasts; and was not the arrangement made with consummate skill, the effect

would be too gaudy to be pleasing; but whether by instinct or training, whichever it may be, the decorative artists of Russia certainly have a fine appreciation of the limits to which color-treatment can be carried, and while in designing their display, they mostly confine themselves to geometric forms, in the use of pigments they give their fancy free play.



Bronze Vase: Japanese Court.

How different is the treatment of the decoration in these pieces from that of the ornament illustrated on page 281, though all are of the same material, faience. This piece is one of the numerous art-works exhibited by the Messrs. Daniell & Son, of London, and shows, as indeed did the great bulk of the perfection of the English potter's art. In studying this fine piece of work, the eye naturally rests first upon the two little vine-wreathed figures resting against the base of the column, their hands full of fruit. The pose of these little fellows is charmingly graceful and pretty, and the contours and flesh-tints have been wonderfully well preserved through all the several firings which the piece had to undergo before it was finished. From these figures we turn to the other ornamentation, the scroll-work and shell-shaped receptacles at the base, the elaborate bracket for the fruit-baskets at the sides, the medallion on the base of the column, and the shaft itself, capped by a third and larger basket for fruit and flowers, and finally the harmony and proportion of the whole is

observed. The piece possesses the rare merit of being pleasing just as it appears, while the imagination, picturing it in use, its baskets heaped full with fruit and flowers, can see that it will gain added beauty by the addition.

The beautiful BRONZE VASE of Japanese manufacture illustrated on page 282 is an example of how faithfully and accurately the artisans of this wonderful nationality can reproduce in metal natural forms, either animate or inanimate.

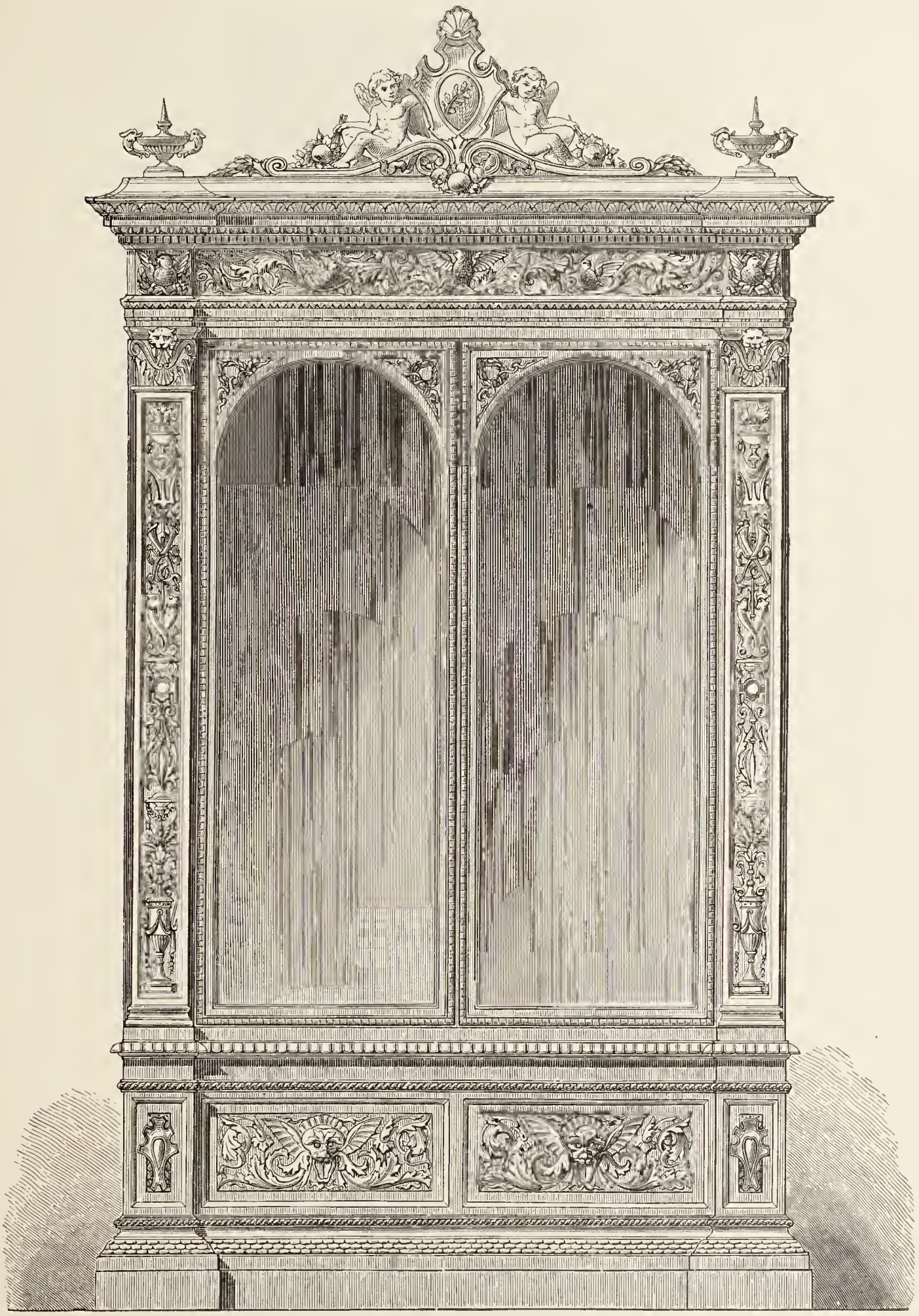
Lace Shawl: Collective Exhibit of France.

We have here rocks, trees, animals, and birds, treated without the least conventionality, the artist appearing to have endeavored to copy them to the life. On the cover of the vase is a mass of rock, jagged and broken, its surface partially covered with the leaves of a clinging vine. Poised on the top, as if just about to spring from its rest, is a pheasant, its wings outspread, its beak open and crest erected, in an attitude of attack. On the sides of the bowl, in the place of handles, are gnarled and rugged roots and branches of trees, twisted and contorted like the laurel of our swamps. Below, as feet to the vase, are animals' heads, each one grasping in its mouth a ring attached to the

base on which the whole rests. The modeling and finish of each of these several objects is perfect. One hardly knows which to admire most, the delicate delineation of the feathers on the bird, the hair on the beasts, the veining of the leaves, or the close counterfeit of the texture of rock and bark. Nor has

The Seasons Plaque: Elkington & Co., London.

minute attention to detail led the workmen to neglect the necessity of consulting the effect of the whole, which is vigorous and bold, as well as harmonious and well balanced. In the panel on the side of the vase is a little picture in relief, just a bit of nature such as might be studied from a window—a tree-trunk and branch, two or three birds disporting themselves, some flowers and grasses, yet all instinct with life and movement, and in keeping with the rest of the design. It is such work as this that wins for the Japanese recog-



Walnut Book-case: F. Romanelli, Florence.

nition as among the most consummate artists and skillful metal-workers in the world.

Lace and diamonds have long been esteemed among women as the chief outward indications of gentility; but of late years diamonds have had to take a second place, and lace, the most precious of textiles, has the supremacy alone. Its use is so entirely confined to ornamentation that even in its simplest form the fabric may be regarded as a luxury, though whole garments are sometimes made of it, and lace shawls are universally popular

Lace Curtain: Collective Exhibit of Brussels.

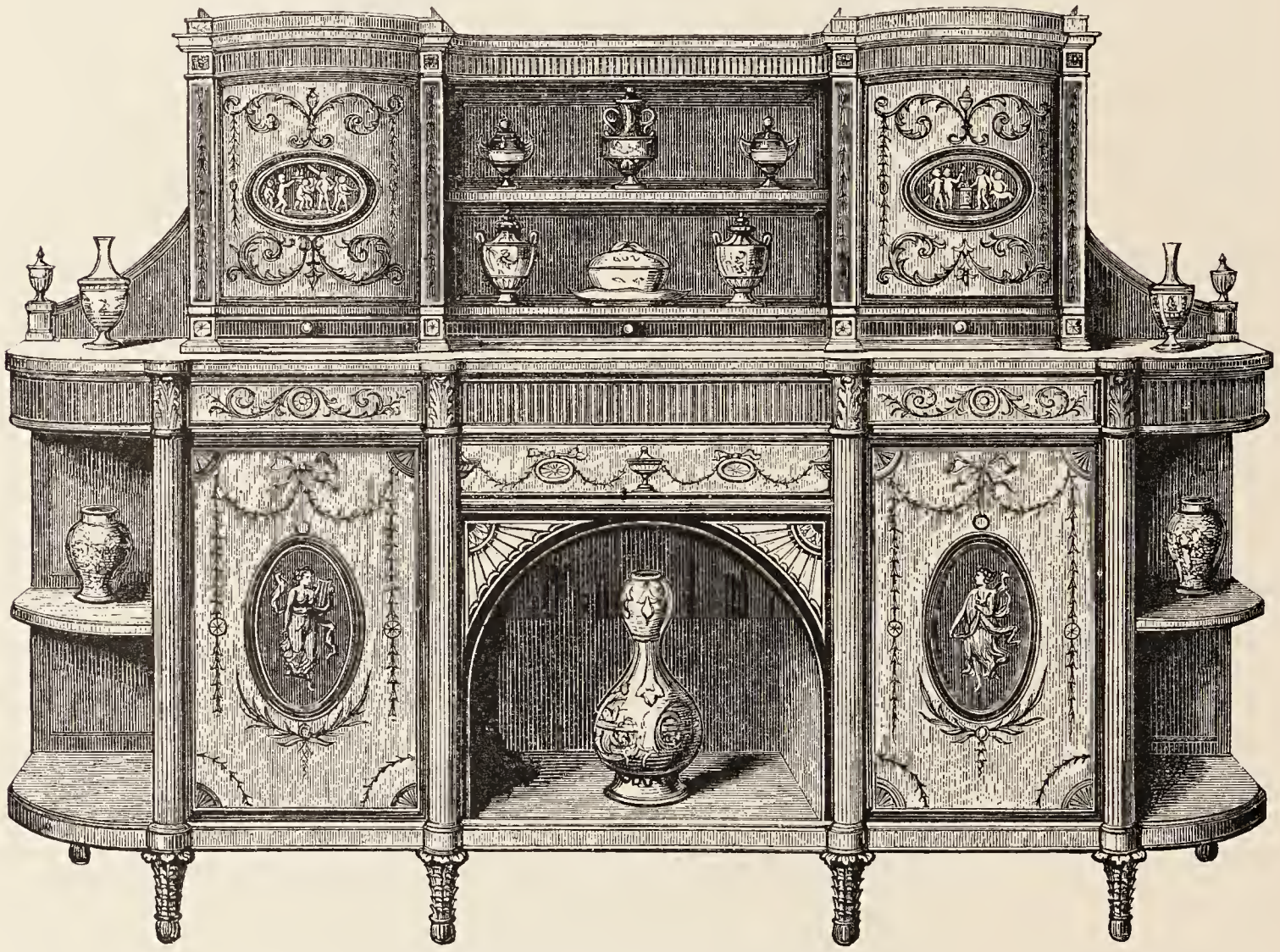
and admired. A very beautiful example of these is shown in our engraving on page 283, which represents a shawl selected from the magnificent display made in the collective exhibit of France. A large central bouquet of flowers is surrounded by garlands interwoven together and arranged so as to fill the triangular space within the border with an elegant and graceful design. The border itself is a beautiful piece of work, two series of curves being disposed the one above the other, giving the effect of a flounce to the edge.

The SEASONS PLAQUE, illustrated on page 284, is another of the examples of artistic metal-work exhibited by MESSRS. ELKINGTON & CO., OF BIRMINGHAM. We have in this beautiful design a treatment of a subject which has been the theme of poets and artists from the earliest ages. In the present instance the artist has symbolized Spring, Summer, Autumn, and Winter, by giving them personality—for the first three, women, and for the fourth, an old man. Spring, a youthful, girlish face is crowned with the earliest flowers of the year, blossoming buds and young leaves; Summer, a face full of warm and glowing life, is garlanded with the luxuriant richness of the season; while Autumn, in the guise of a matron, comes with head wreathed with fruit, the harvest-moon upon her brow, typifying the fullness and fruition of the year. Old Winter, grave and serious, has for his wreath a branch of holly, emblem of the jollity and mirth with which we speed the parting, melancholy guest. Between these faces, gracefully intermingling with each other, are tendrils of plant-life, expressive of the same theme; and poised between, each on some playfulness intent, are cupids whose actions—one shielding himself from cold, another shooting a love-dart, another bearing flowers, and the fourth fruit—complete the harmony of the design. In its workmanship the execution of this plaque is thoroughly satisfactory. The firmness and vigorous outline to the *repoussé*-work is remarkable, and the exquisite finish and minuteness of detail in the inlaid or damascened portions are quite worthy of an oriental metal-worker's skill.

The WALNUT BOOK-CASE, illustrated on page 285, is from the exhibit of carved wood-work in the Italian Court at the Exhibition, and is the work of F. ROMANELLI, OF FLORENCE. While in outline it is plain almost to severity, this only makes the elaborateness and richness of the carving in the panels the more noticeable. The large glass panels in each door further limit the space for decoration, so that in fact the carver has only the uprights or pilasters on either hand, and the base and pediment, on which to display his skill. In general design and in detail the artist has followed classic models. In the panels at the base are winged masks, half human, half animal, carved in relief with scroll-work, while a Pompeiian pattern, a succession of vases, scrolls and emblems, is introduced in the pilasters. The pediment is ornamented with an elaborate frieze, consisting of birds and leaf-scrolls, with phœnixes in the square panels at the ends. Above the whole, at either corner, are shallow Pompeiian

lamps, and as a central and crowning ornament are two cupids supporting a scroll and medallion on which arms or a monogram may properly be carved.

A beautiful example of one of the higher grades of Brussels lace is seen in our engraving on page 286, a LACE CURTAIN exhibited in the collective exhibit of Brussels lace-manufacturers. The design is not only elaborate: it is intricate and minute in no ordinary degree. In the central medallion are a



Sideboard; Wright & Mansfield, London.

harp and lyre and other implements of music surrounded by a wreath of flowers. These are supported on a vase, the lines of which wind off into a bewildering scroll-work of flowers and tendrils. Cornucopias on either hand are overflowing with fruit, and above them climbing plants meet and intertwine with others suspended from above. In this part of the design there is something of oriental richness and feeling, though with a more accurate and careful balancing of parts. The scroll within the border and the border itself are thoroughly Eastern in character.

As in our modern manner of furnishing the dining-room the sideboard is made the most conspicuous object in the room, more attention is given to its design and construction than to any other of the pieces of furniture. It is the one object that can be ornamented and decorated to any extent that the fancy of the designer may suggest. Chairs and tables from their construction and

Majolica Fountain: Daniell & Son, London.

use can only receive ornamental treatment in design within certain definite limits, but in the sideboard no rules except those of harmony with the rest of the furniture obtain, and as it is essentially a "show-piece," it is quite right that it should be elaborated accordingly.

The SIDEBOARD shown in our illustration on page 288 is selected from the exhibit made by MESSRS. WRIGHT & MANSFIELD, OF LONDON, as a fine example of the adaptation of our modern methods of decorating to the Queen Anne style of construction. It will be observed that all the lines of this piece are plain and simple, unrelieved by any other than the most moderate ornamenta-

tion, and with numerous broad flat panels. These latter afford an excellent ground for the color-treatment and pictorial designs which are so much in vogue at the present time, and consequently they have been seized upon by our modern decorator for that purpose. What a happy effect is obtained by this means can be seen by referring to our illustration. Each of the four principal panels has a central medallion with figure-subjects painted in color on a dark ground after the style of the Pompeiian frescoes, and surrounding them are scrolls, garlands and pendant designs inlaid with ebony into the light-colored

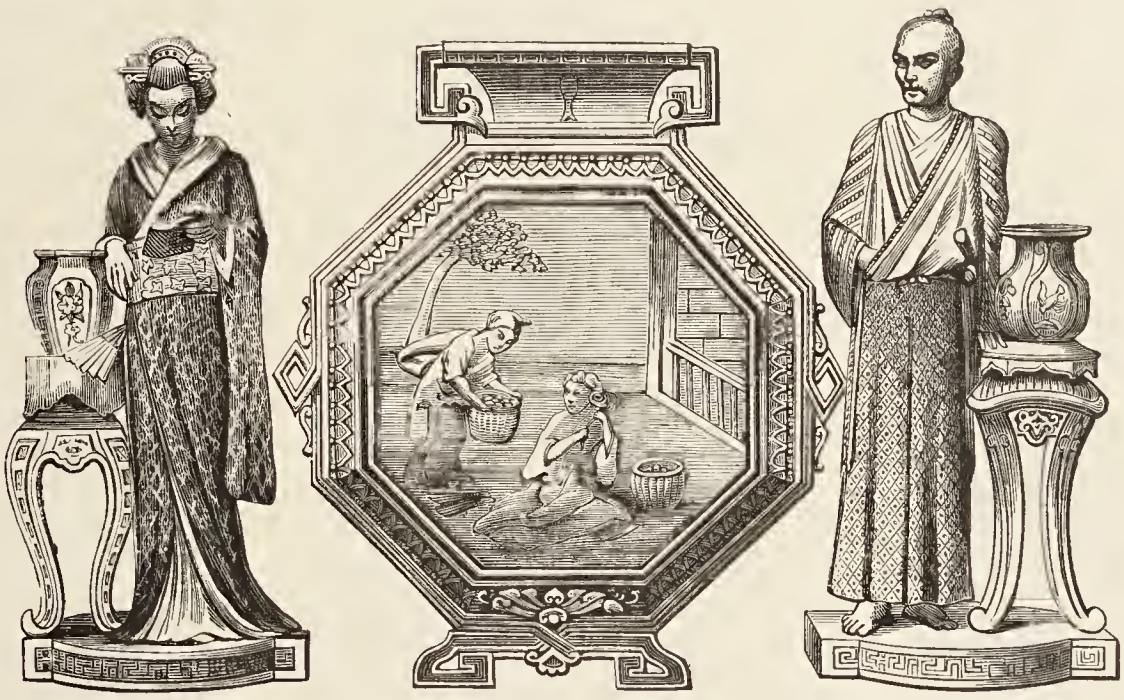
Japanese Porcelain: Japanese Court.

panel wood. The same treatment has been carried out with less elaborateness in the smaller panels and on all the flat surfaces, so that a bright rich color-effect is produced, and the eye attracted at once to a study of the detail which produces such a pleasing result.

A pleasant feature of the Exhibition, and one affording satisfaction and enjoyment to the thousands thronging the vast corridors of the Main Building during the heated summer days, was the arrangement at intervals, in these walks, of fountains playing streams of water into shallow basins and cooling all the air about with their refreshing spray. Opportunity was thus afforded the exhibitors of these objects to show them to the best advantage—that is, with the water forming the curves, cascades and transparent liquid sheets which are, or should be, as carefully studied for effect as the outline of the fountain itself. Indeed, it may be said that a fountain, to be perfectly satisfactory as a work of art, should appear at its best when the water is in play,

but yet be so perfect in itself as to be an ornamental feature when not in actual use.

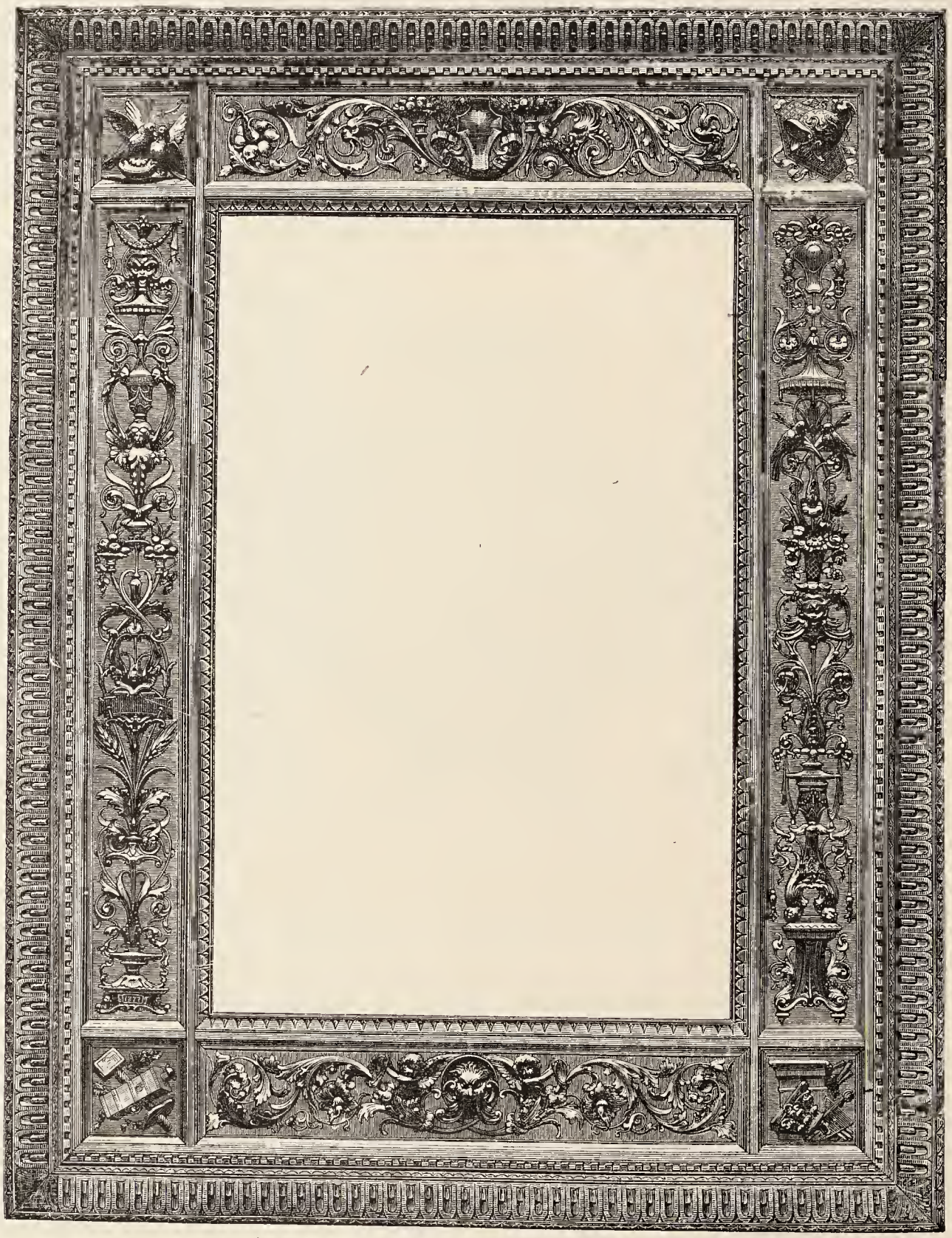
There were fountains of great variety, adapted for lawns, garden or conservatory, shown at the Exhibition; some of iron, others of marble, more again of terra-cotta, and still others of majolica. These latter, from the character of the material and richness of decoration and ornament, were, of course, intended for use in conservatories or other sheltered places. Our illustration on page 289 represents one of the most beautiful of these majolica fountains, which was shown in the exhibit of MESSRS. DANIELL & SON, OF LONDON. It is remarkable



Japanese Porcelain: Japanese Court.

not only for the elegance of the design and the richness of color in its several parts, but also for the technical excellence which, in so large an object, is very great. In shape it is like a vase. Around the stem or shaft are dolphins modeled in full relief, heads downward and with mouths open for the passage of the water, which gushes out in as many streams into the basin in which the fountain is supposed to stand. Above and around the body of the vase is a charming design in relief—cupids swinging in hammocks suspended between comic masks, and leaning over as if watching the play of the water beneath them. It is not apparent that there is any play of water above the vase, but if there is we may imagine it flowing over its curved lip in a crystal sheet, bathing the naked bodies of the little cupids in a manner refreshing to contemplate.

On pages 290 and 291 we illustrate several examples of the wonderful JAPANESE PORCELAIN, a material which in the hands of oriental artificers seems

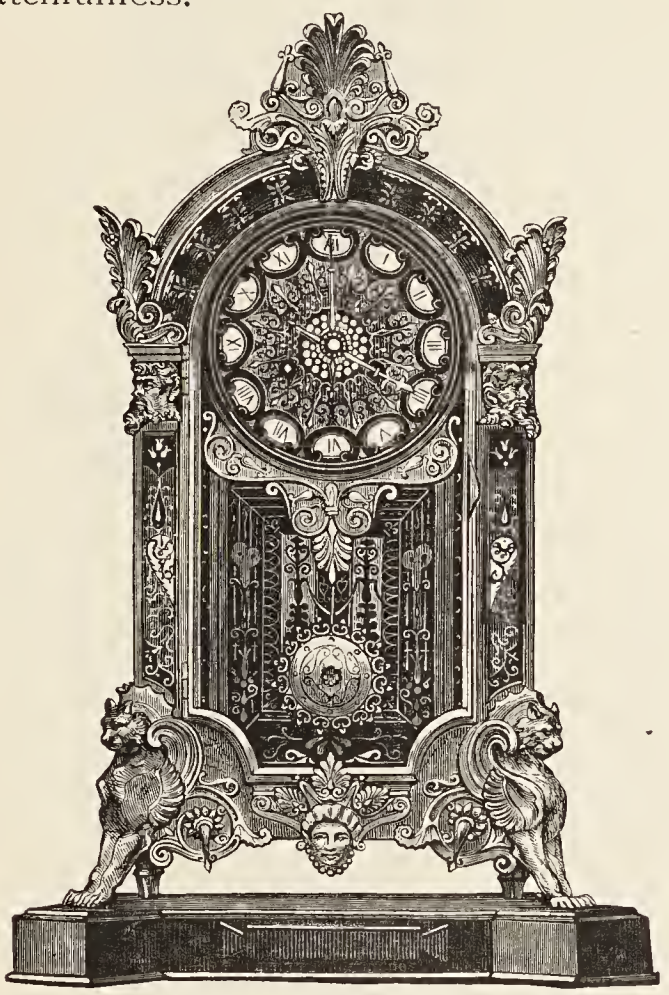


Carved Walnut Mirror-Frame: Frullini, Florence.

capable of almost any form and color-treatment. Our first group of illustrations show these several styles of vases, each one of them odd and curious enough in shape and decoration to repay careful examination. On the broad

surface of the first vase is a bit of pictorial art—a group of tall palm-trees bending beneath the weight of their leaves, while in the foreground, on the edge of a marshy pool, stands a stork reaching forward in the act of seizing its prey. The study of nature here, as indeed in all Japanese work of this character, is perfect. Every detail of plant-life, bud and leaf and flower, has been carefully and faithfully studied and as carefully and faithfully portrayed. So too with the bird: its pose is instinct with life, and vividly conveys the impression of alert watchfulness.

The second vase, with its elephants' heads for handles, has something of grotesqueness about it, though its outline is severely plain. The principal decoration here is in the panel on the side, representing a crested bird, like a cockatoo, swooping forward with extended wings after an insect on the flower-spray before him. The third vase is much the most elaborate of the three. In shape it is a double vase, one seeming to rest upon the other. The lower of the two rests in a woven basket on a stand of bamboo pieces tied together. Above, the basket-work blends off a pattern of brilliant color-decoration, strongly outlined against the white surface of the bowl itself. From the upper vase two serpents are winding slowly downwards, their sinuous bodies clinging to the curves of the vases and forming the handles. The other decoration is of the simplest character—a leaf, a spray, a flower thrown on the surface of the piece at the fancy of the artist.



Ormolu Clock: French Collective Exhibit.

The central object of the second group, on page 291, also is an oddly-shaped vase, fashioned without curves. The quaint group in the panel on the side might be taken as a Japanese portrayal of the story of Adam and Eve. But the most interesting objects on this page are the two little porcelain figures, which the reader should carefully observe. They are as perfect in modeling

and sharp in finish as if they had been executed with a carver's chisel, and a minute execution is given to the detail that is truly wonderful. An admirable feature in these figures is the treatment of the drapery, and this is especially excellent in the dress of the woman. Observe, also, her pose; how perfectly natural it is—leaning gently upon the vase, with her right hand hanging idly beside her; in her left hand holding a book open at a passage which she is reading with absorbed attention. The male figure appears to be that of a priest or scribe, as his feet and head are bare, and he carries an ink-horn in his girdle. He stands resting his hand on a vase in somewhat the same attitude as the woman, and the two figures make an excellent group or pair. Prettier or more interesting ornaments than these to a mantelshelf or "whatnot" could hardly be desired, and they possess an additional value to us as being correct copies of the costume worn by the wonderful people who fashion these things.

Table Lamp: German Court.

We have already illustrated several examples of wood-carving by Italian artists, and on page 292 we give another specimen, the work of FRULLINI, of FLORENCE. It is a MIRROR-FRAME, executed in some dark, close-grained wood, and may be regarded as a study in the classical style. Both the outer and inner edge of the frame have a beviled surface, orna-

mented with an incised pattern cut in low relief. The upper flat surface is divided into panels by raised mouldings, and to the ornamentation of these panels the artist has given his careful attention. The design of each is different, though a perfect balance and harmony has been preserved throughout. In the four corners are groups symbolic of War, Peace and the Arts, each one a a pretty study in itself. In the horizontal panels above and below are graceful scrolls starting from a common centre and winding off to the right and left in fanciful curves, in which we can discover curious masks and griffins' heads. In the lower panel, half concealed in the leafage of the scrolls, are cupids bearing wreaths and smiling down upon the satyr whose head is thrust out between them. In the upright or side panels are designs of a character such as are commonly seen in Pompeiian decoration—a combination of vases and scrolls, garlands of fruits and flowers, raised one above the other in bewildering succession. All of this work is carved in medium relief, but with such precision and nicety and attention to light and shade as to make it appear higher than it really is.

Hall-Lamp: Joint Stock Company of Berlin.

On page 293 we illustrate an Ormolu Clock, one of the dainty and luxu-

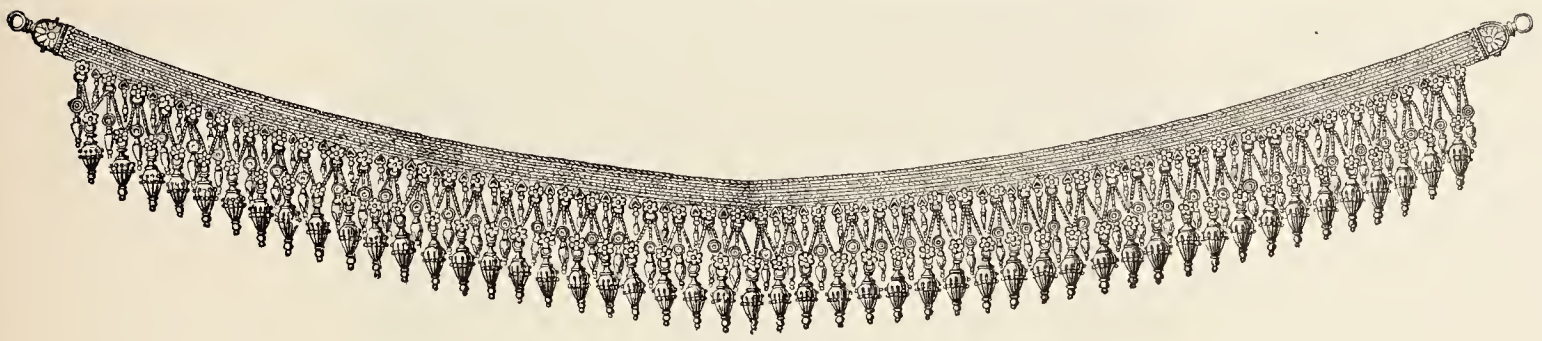
rious articles of ornament and use shown in the FRENCH COLLECTIVE EXHIBIT. It is designed with all the abundant richness of ornamentation that characterized the Louis Quartorze period. Winged griffins support the base, rich in gilding and scroll-work. A glass panel, engraved with a design as fine as cobweb, protects the mechanism of the clock from the dust while permitting its working to be seen. The clock-face, brilliant with many-colored enamels, is set in an ormolu frame or case with shells and foliated figures executed in high relief.

On the continent, where gas is used to a much less extent than with us in this country, lamps are in correspondingly greater demand, and great attention is given to make them as ornamental and attractive as possible. The central object of a table, often of a dinner-table, in the evening, is the lamp, and according as it is beautiful or homely it adds to or detracts from the beauty of its surroundings. On page 294 we engrave an illustration of a TABLE-LAMP of great elegance and beauty. The stand is of bronze, and consists of a central shaft and a trio of light rods supporting the cup for the fluid. At the foot of the piece three griffins' legs, bent at the knee, radiate outward, forming a triangular base. The band around the fluid-cup is ornamented with rosettes, and the rods have terminal rings, which swing free and serve as handles in carrying the lamp from one place to another. The fluid-cup is of plain white porcelain, without decoration of any kind, but the ground-glass shade around the chimney is richly engraved and is shaped like a lily. This lamp was manufactured in Germany, and was exhibited in the Court of that nation at the Centennial.

On page 295 we engrave another lamp, also of German manufacture, and part of the same exhibit, but a much more elaborate piece of workmanship. This is a HALL-LAMP, intended to be suspended from the ceiling, and is therefore a larger and weightier object. The main portion or case containing the light is of crystal, the sides being composed of a row of cut-glass prisms which give a most brilliant effect when illuminated. This is upheld by three bronze rods coming together around a central ball suspended by a single rod from the ceiling. All of these are finely chased and engraved, and the supporting rods are finished with flowers and leaves. Suspended above the centre of the lantern is a porcelain shade with pendants, and above this, as on a pedestal, stands a

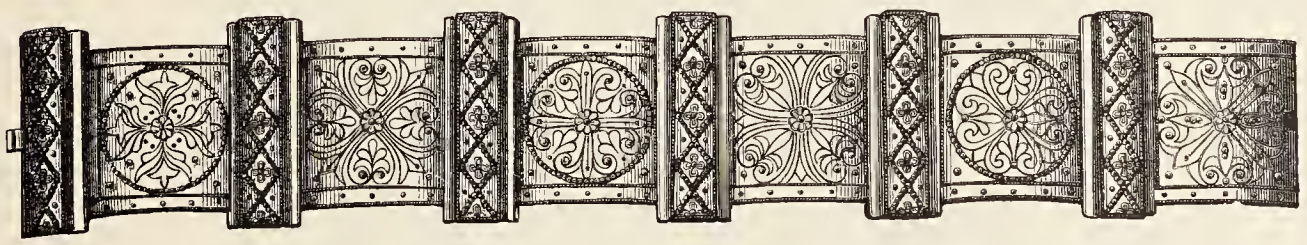
graceful little figure of Love testing the keenness of an arrow. On the rim of the lantern is a group composed of a wreath, crossed quivers and a pair of doves, while at either side are winged female figures supporting shallow crystal vases. The finish and execution of this fine work is in the very best manner, and both the design and workmanship reflect credit upon the manufacturers.

In a very interesting paper written by Signor Alessandro Castellani, of Rome, he describes the labors and research with which his new school of jewelry, which



Gold Necklace: Signor Castellani, Rome.

aims at the perfect imitation of ancient and mediæval works of art in gold and precious stones, has been established. In 1814 the elder Castellani opened a studio in Rome for the imitation of the jewels of France and England, in which he was very successful. Some years later he turned his attention to chemical



Gold Bracelet: German Court.

science, looking for aids and methods which could advance his art, and he made discoveries in coloring gold and the application of electrotype and similar processes to the art of gilding that attracted much attention. About this time the ancient cemeteries of Etruria yielded up the beautiful jewels that had been buried for so many centuries, and Signor Castellani conceived the idea of reproducing them with the greatest possible exactness. In the Regulini-Galassi tomb were remarkable works in gold, which furnished the means of acquiring a more precise knowledge of the character of the early Etruscan jewelry, and facilitated his researches into the methods used by the ancients in working gold. Let us quote here Signor Castellani's own words:—

"Having determined to restore as well as possible, and, as we may express it, to renew the ancient school of jewelry, our first step was to search after the

Monumental Brass: Singer & Co., Frome, England.

methods of fabrication employed in ancient times. We observed that all the jewels, except those intended for funeral ceremonies, instead of owing their raised

parts to chiseling or engraving, were formed by separate pieces brought together and placed one upon the other by means of solder or chemical processes. This

Monumental Brass: Singer & Co., Frome, England.

it is, in our opinion, that gives them so peculiar and marked a character, derived from their expressing, as it were, the fresh idea and inspiration of the artist,

and unattainable by the cold and regular execution of the workman. The very imperfections and omissions, purposely made, give to the workmanship that artistic character altogether wanting in the greater number of modern works, which, owing to a monotonous uniformity produced by punching and casting, have an appearance of triviality, depriving them of all individual character, that charm which so constantly strikes us in the productions of the ancients.

"The first problem, then, that presented itself to our attention was to find the means of soldering together, with the utmost neatness and delicacy, so many pieces of extraordinary minuteness. Among others, those almost invisible

Jardinieres and Vase: French Court.

grains of gold, like fine sand, which play so important a part in the ornamentation of antique jewelry, presented nearly insurmountable difficulty. We made innumerable essays, employing all possible chemical agents and the most powerful solvents to compose a proper solder. We consulted the writings of Pliny, Theophilus and Benvenuto Cellini; we studied the works of the Indian jewelers, as well as of the Maltese and Genoese, and neglected no other sources of instruction which tradition could supply, but it was only in a remote corner of the Umbrian Marches, at *St. Angelo in Vado*, a little district hidden in the recesses of the Apennines, free from every centre of civilization, that we found

still in use some of the processes employed by the Etruscans. There yet exists, in fact, in this region of Italy, a special school of traditional jewelry somewhat similar—not, indeed, in taste or elegance of design, but at least in method and workmanship—to the ancient art; and the beautiful peasant girls of these districts, when at their wedding-feasts, wear necklaces and long ear-rings called *navicelle*, much resembling the antique in their workmanship. We procured, then, from *St. Angelo in Vado* a few workmen to whom we taught the art of imitating Etruscan jewelry. Inheriting the patience of their forefathers, and caring nothing for those mechanical contrivances by which geometrical exactness is attained in modern jewelry, these men succeeded better than all whom we had previously employed in the imitation of that freedom of style which is the peculiar characteristic of the art among the ancients."

God of Contentment (porcelain): Chinese Court.

The events of 1848 and the disastrous years following caused a suspension in the work, and it was not until 1858 that Signor Castellani was able to resume his researches. The discoveries at Cumæ, at Ostia and at Kertch in the Crimea gave new subjects to work upon. No difficulty was experienced in copying the jewels of ancient Rome, but those of Etruria and Greece required special labor, and many attempts were made before the uniform and granulated work and the various enamels were successfully reproduced. The discovery made while examining some ancient Etruscan ornaments, that the places from which the granulated work had been broken off presented the same appearance as these gold surfaces from which the enamel that once covered them had been

torn away, led Signor Castellani to try a new process for the production of that granulated work which modern goldsmiths had agreed to consider inimitable. The results of the attempt were so far successful as to solve, in a great degree, the problem that for twenty years had engaged his attention. Other processes were then studied in order to reach the degree of perfection that characterizes antique personal ornaments. In 1868 Signor Castellani founded another *fabrique* in Naples, where, after long and assiduous labor, he discovered the method of reproducing the granulated work of the Phœnicians and Etruscans.

Panel of Tapestry: French Court.

In the Italian Court, in the Main Building at the Centennial, Signor Castellani exhibited a number of examples of jewelry in which the *granaglie* had been applied according to his new method. The articles for beauty and delicacy of workmanship rivaled the superb collection of veritable antique jewelry exhibited (also by him) in Memorial Hall. Beside them was a small shallow saucer, no larger than a silver dollar, seemingly filled with gold dust or filings; yet on examination through a magnifying-glass these particles proved to be minute spheres, or *granaglie*, and such atoms as these fastened upon the surface of the ornament produced the elegant effect seen in the jewels themselves. On page 297 we illustrate a NECKLACE from the collection, in which the ancient art is fairly equaled by the modern process.

A beautiful jewel, of a character entirely different from the preceding, is the GOLD BRACELET engraved on page 297. It is of German manufacture, and was exhibited in the Court of that nation at the Centennial, among the fine collection of examples of goldsmiths' work there to be seen. It consists of a series of square gold plates joined together by broad massive bands,

cut and chased in an elaborate manner. Enamels of various rich colors are used to heighten the effect, and seed-pearls, turquoises, garnets and other gems are introduced into the intricacies of the tracery with marked success. It will be observed that while the design on the bands is the same, each square presents a different pattern, and the ingenuity of the designer has been cleverly shown in the skill with which he has preserved a harmony in the whole, while giving to each geometric figure a variation peculiar to itself. The several parts of the bracelet are connected together by invisible hinges in such a manner that when clasped together in a circlet the whole appears to be without juncture or division of any kind.

Panel of Tapestry: French Court.

The study of the monumental brasses of England and Europe is one of the most interesting fields open to the antiquary. Beginning in a remote antiquity, the custom of erecting to the memory of the dead, engraved memorial tablets in brass or bronze has continued without interruption to the present time. Of late years it is true that the practice has fallen into comparative disuse, but now, with the new art-revival, we find attention returning to this subject, and the appropriateness of the custom having never been questioned, we may hope to see a speedy and general return to its use.

Some few years ago there was exhibited in this city a fine collection of copies of monumental brasses in the English cathedrals, obtained by transfer of the designs from the monuments themselves on to tracing-paper. The transcriptions thus obtained were therefore absolutely correct, and the exhibition was one of such rare interest as to claim general attention.

On pages 298 and 299 we engrave a couple of examples of MONUMENTAL BRASSES which were exhibited in the English Court at the Centennial. In design

and treatment the work as seen in our illustration resembles that in monumental windows of stained glass, and of course the object, to commemorate the memory of the dead, is the same in both. But while the window is liable to a thousand accidents, the monumental brass continues for ages an enduring and indestructible memorial to the deceased. The general reader will find much to admire in the beauty and elegance of these designs, and whoever is learned in ecclesiastical lore will recognize the appropriateness and significance of the vignette subjects and the other details of the work.

The group of articles in faience, illustrated on page 300, we need scarcely say is obtained from the French Court. There is a lightness and delicacy about the decoration and ornamentation peculiar to French workmen. These remarks do not indeed apply to the Persian vase or jug, but that is manifestly a copy from an oriental model; but the jardinieres, with their light bronze stands and scroll and figure decoration, are essentially French. The larger one of the two is particularly graceful in design.

Tapestry Chair: Department of Aubusson.

"It was Tiresias the prophets counsel to Menippus, that travelled all the world over, even down to hell it self, to seek content, and his last fare well to Menippus, to be merry. *Contemn the world* (saith he) *and count all that is in it vanity and toyes: this only covet all thy life long; be not curious, or over solicitous in any thing, but with a well composed and contented estate to enjoy thyself, and above all things to be merry.*

"Si, mimnerus uti censet, sine amore jocisque
Nil est jucundum, vivas in amore jocisque."

Thus writes Democritus Junior in the second partition of his "Anatomy of Melancholy," that wonderful treasury of learning which has furnished many a pedant with his apt classical phrase, and where the thieves of literature prowl undetected. Contentment, then, and merriment, in the prophet's mind, went together, and, though not synonymous, were coequal. See now how curiously the Chinese have embodied the same idea in their God of Contentment, which

is illustrated on page 301. Above all things be merry; that indeed he is, and with rollicking joyousness that knows no solicitation for anything, and which counts all that is in the world vanity and toys. He is a good liver, too, and evidently has all a *bon vivant's* keen sense of humor. Would that we knew what the joke is now, which is making his jolly, fat sides shake with laughter, and has given an expression to his face that makes us laugh to look at him. Who will say that there is not deep philosophical reason underlying this humorous conception of Contentment, and that the Chinese, in typifying the god under the guise of a jolly fellow, are not giving expression to a great fundamental truth?

Why the little man is represented as a misshapen dwarf, and with a razor in his hand, as if he was a barber by profession, could doubtless be explained satisfactorily by one learned in oriental mythology. Perhaps his good nature, notwithstanding his deformity, is the more emphasized in this, but the significance of the tonsorial instrument passes our powers of conjecture.

Tapestry Chair: Department of Aubusson.

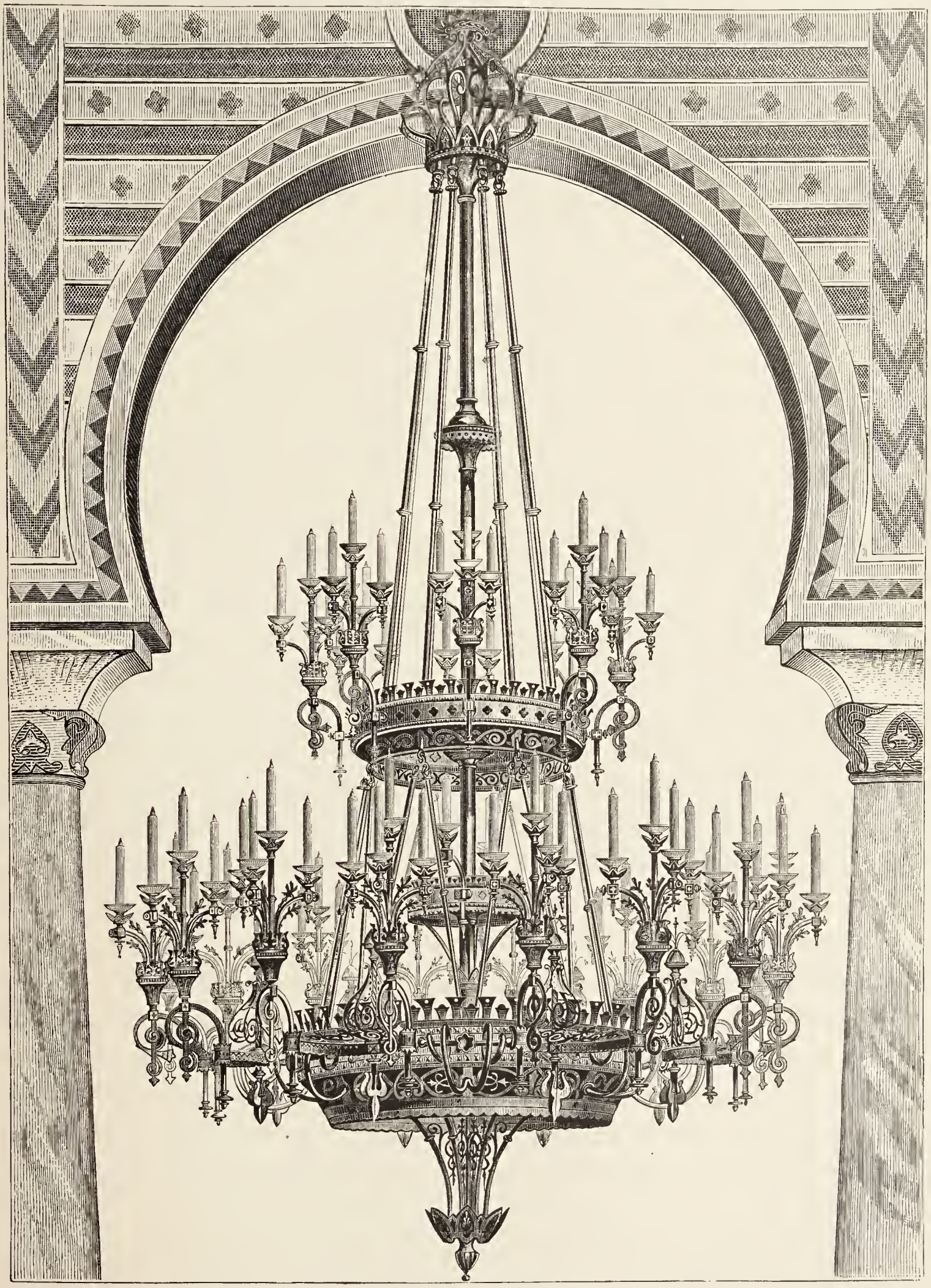
This little figure is made of a fine quality of porcelain and modeled with great nicety. The block on which it stands has a texture in imitation of ivory.

The pair of TAPESTRY PANELS, illustrated on pages 302 and 303, are chosen from the fine exhibit made by France which was displayed both in Memorial Hall and in the Main Building at the Centennial. In the galleries of the former building were examples of the marvelous work anciently executed at Gobelins and at Beauvais, serving as a standard by which the achievements of the tapestry-makers of the present day, whose contributions were displayed in the Main Building, might be estimated. The examples before us are of this modern workmanship, and our readers will agree that they need not fear comparison with the ancient products of the loom. The designs, in which a group of the instruments of war and another of the implements of peace are wound about by garlands of flowers, are exceedingly artistic and graceful, and evidence much skill in composition. The choice and blending of the colors has been carefully and skillfully executed, and the finished

work has much of the quality of a painting, and indeed is equally a work of art.

France has long enjoyed the reputation for making the most exquisite and costly fans in the world, and although the demand for such magnificent articles as were made for the ladies of the Court in the times of Louis have ceased, highly artistic workmanship is still in demand and liberally paid for. Fan-painting has for many years been a means of subsistence to a numerous band of artists, some of whom have achieved distinguished success in this branch of their art; while in the decoration of handles of the fan, the ingenuity and skill of workers in the metals, wood, ivory, pearl, tortoise-shell, and the like is taxed to produce new and attractive designs. On page 310 we engrave a couple of these beautiful articles, in which the reader can see for himself to what elaborateness, even in this day, the decoration of the handles is carried; and doubtless could we open this pair of fans we would find the surface of their face painted with a design as beautiful in its way as is the decorative work before us.

Doubtless the use of fans in Europe was borrowed from the Italians, who in turn had them first from oriental countries. That paper fans were not generally known in England in the beginning of the seventeenth century is proved by the remarks of Thomas Coryat, who, writing of his continental tour in 1608, says: "Here [Italy] I will mention a thing, that altho' perhaps it will seem but frivolous to divers readers that have already travelled in Italy, yet because unto many that neither have beene there, nor ever intend to go thither while they live, it will be a meere novelty, I will not let it passe unmentioned. The first Italian fannes that I saw in Italy did I observe in this space betwixt Pizighiton and Cremona; but afterwards I observed them common in most places of Italy where I travelled. These fannes both men and women of the country doe carry, to coole themselves withall in the time of heat, by the often fanning of their faces. Most of them are very elegant and pretty things. For whereas the fanne consisteth of a painted piece of paper and a little wooden handle; the paper, which is fastened into the top, is on both sides most curiously adorned with excellent pictures, either of amorous things tending to dalliance, having some witty Italian verses or fine emblems written under them; or of some notable Italian city, with a briefe description thereof added there-



Brass Corona Chandelier: Mitchell, Vance & Co., New York.

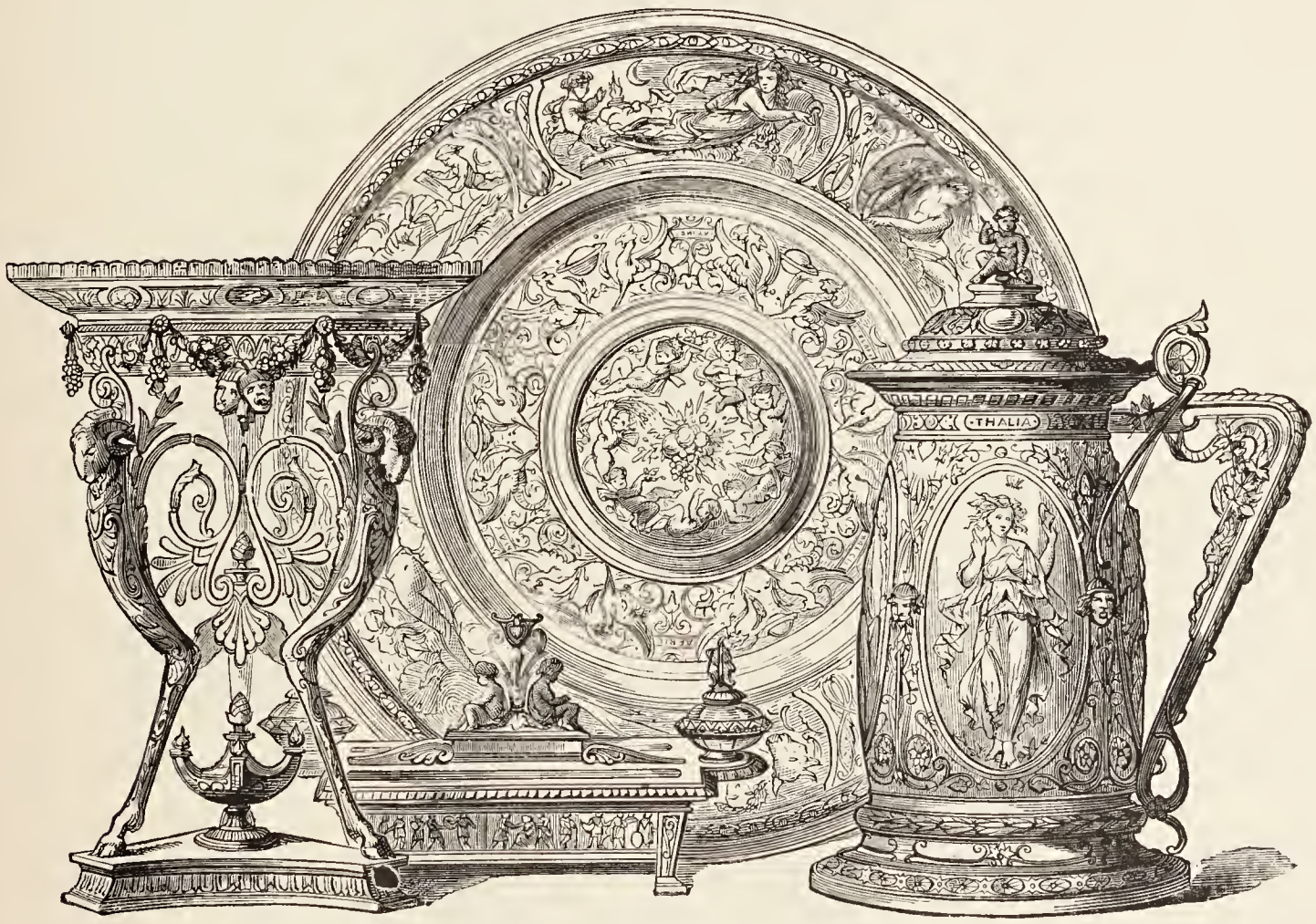
unto. These fannes are of a meane price, for a man may buy one of the fairest of them for so much money as countervaileth our English groate."

The two chairs covered with tapestry, illustrated on pages 304 and 305, which were exhibited in the French Court of the Main Building at the Centennial, may be accepted as examples of the styles of furniture which French upholsterers consider fit for use with this costly and most artistic covering. The frames are of ebony or ebonized wood, ornamented with carving and gilding, but with these in rather less profusion than we are accustomed to see in Parisian work of this nature. The shape and size of the chair-frame being given, the design for the tapestry is made, and thus a pattern following the lines of the frame and adapted to them is prepared. In one of our examples it will be seen that cornucopias, bouquets and garlands of flowers are enclosed in one large wreath, which forms a second frame within the wooden rail of the back. The second design is of a more elaborate character, and includes a group of a little cupid leading a lion at his will. Although the patterns of the covers for the seat and arms of these chairs cannot be seen in our illustrations, it is scarcely necessary to state that they are in harmony with those on the back, though less elaborate, because they occupy a less conspicuous position.

We have selected for illustration on page 307 the Brass Corona Chandelier, manufactured and exhibited by Messrs. Mitchell, Vance & Co., of New York, and worthily ranking among the *chefs d'œuvre* produced by that house; and there can be no doubt that in the manufacture of artistic gas-fixtures our American makers are unsurpassed by those of any European nation. For example, it would be difficult to find anywhere a more beautiful and in every respect satisfactory design than this one which is before us. Beginning with the graceful crown just below the ceiling, the lines of the chandelier expand to the first circle of lights, where they break into a network of curves and angles, which, though they change with every movement of the observer, never become confused or cease to convey that sense of richness combined with lightness which is one of its chief excellencies. Here indeed is an example of American industrial art-workmanship which Europeans can look at with pleasure and profit.

If the question is asked, What is it that makes a work of this kind so thoroughly satisfactory? we answer, without hesitation, the fitness of the orna-

ment to the material, the use for which the object is designed, and the excellent taste displayed in the treatment of the design. The great fault in the ornamental work usually produced by gas-fitters is the exaggerated imitations of the florid French styles which the designers affect. These objects are showy, flashy and generally overloaded with ornament, often consisting of foliage and flowers, copied after nature and presented without any constructive arrangement

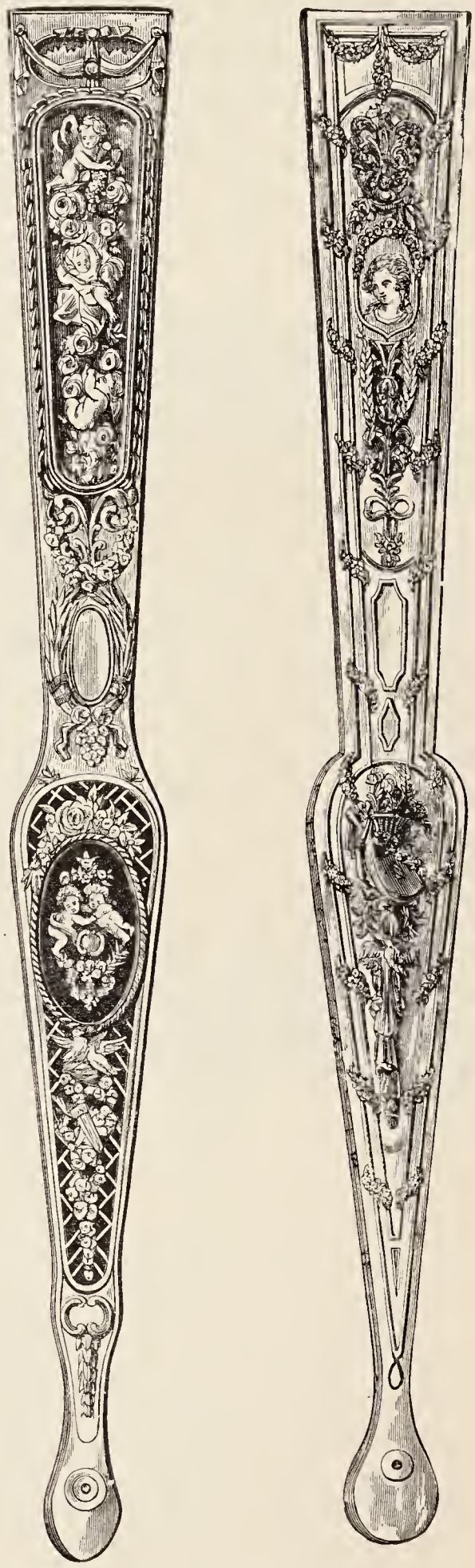


Group of Silver-ware: Elkington & Co., Birmingham.

whatever. Thus they present a tangle of leaves, flowers and branches, in which all characteristic form is lost, and which indeed simply adds weight without strength. In this corona the very reverse of all this is true. The artist has given his fancy play in his design, but has always kept within those limits in which mere decoration is made subservient to a unity of style and the needs of construction. Such work as this is in itself an incentive to the study of the principles of design and ornament in manufacture. Nor must the blame for the inartistic work before referred to be placed on the designers. They are employed to produce works that will take with the public and sell rapidly; and

until the public is educated up to an appreciation of true honesty in construction, fitness of ornament to material and decorative subordination, we must expect to see the artistic sense of the designer submit to the popular demand.

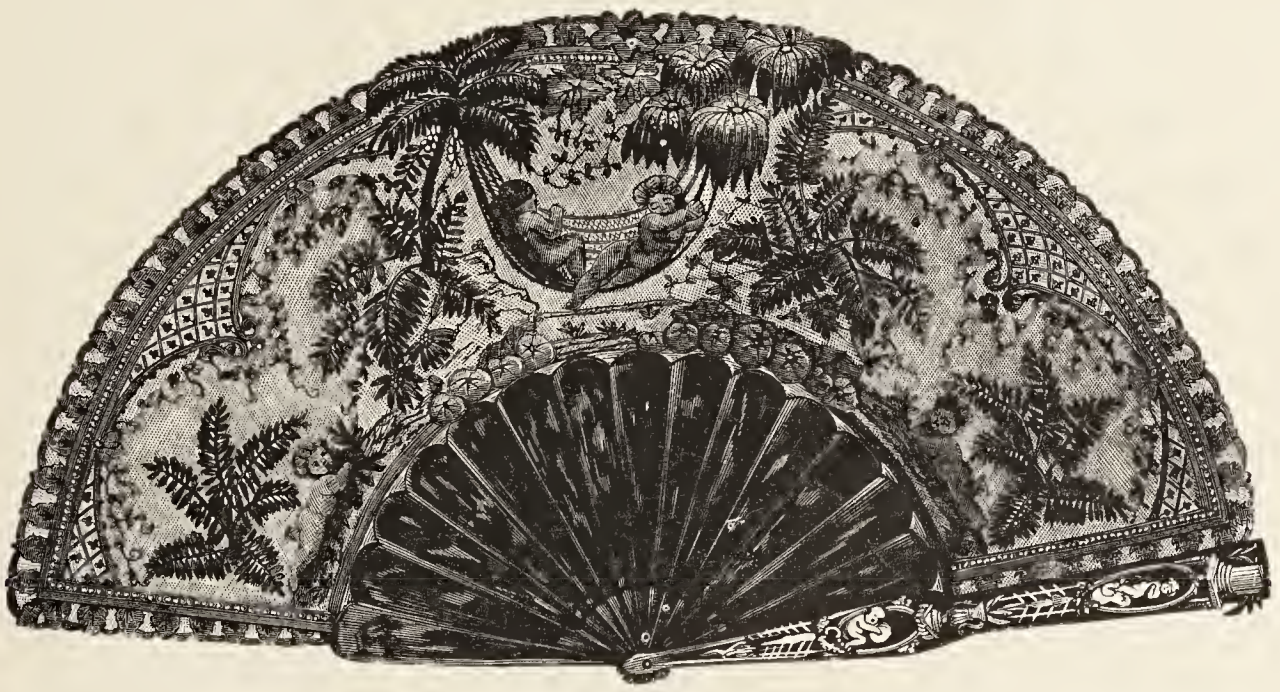
Our readers are familiar with many of the beautiful works of art manufactured by the MESSRS. ELKINGTON, OF BIRMINGHAM, ENGLAND, as they have been illustrated in these pages. The exhibit of these celebrated silversmiths, as compared with the extent and importance of their business, was not a large one, but it was representative of their art department. Every object shown had its art value, and in this the collection was quite without a parallel in the English Court. On page 309 is shown a group of this artistic silverware just as it was arranged for our artist. At the back is a superb plaque, ornamented with *repoussé*-work; on the right is a pitcher, ornamented in the same manner, with medallions and figures like the Thalia in the one before us. An inkstand, with a group of figures in relief, and an exquisitely executed panel below, and a noble dish of classic design for fruit or flowers, compose the quartette of objects, any one of which will fully indicate the perfection of the art-workmanship obtaining in the MESSRS. ELKINGTON'S establishment.



Fans: French Court.

It is quite natural that we should look for art in works in

the precious metals, for here the works of the artist and the artisan go hand in hand. As long as the artist regards the material in which he works merely as a vehicle with which to express his art-idea, he is safe, but as soon as the desire manifests itself to bring forward the value of the material itself, the art-idea suffers in proportion. It very often happens that an admirably conceived and moulded design of an artist is spoiled by the belittling treatment it receives at the hands of the workman by whom it is produced in the precious metal; for the latter, with his lower range of art-feeling, sees more value in



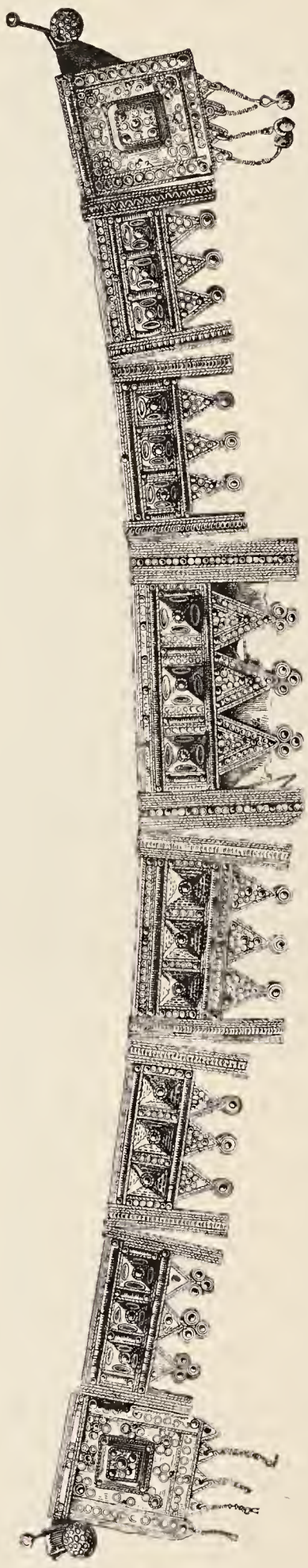
Fan: French Court.

the vehicle than in the idea itself, and he labors accordingly to give prominence to the fact that This is silver, or That is gold, ignoring the art-idea. In ancient metal-work errors of this kind were avoided, because the artist and artisan were one. Now the artist conceives and the workman executes.

We can imagine that the FAN shown on this page may be one of the two already illustrated a few pages back, for this also is from the collection on exhibition in the French Court. But in this instance the face is not painted, but is made of the finest lace, the pattern being designed and worked expressly for this purpose. Nothing more delicate and fairy-like could be imagined, nor could the most capricious beauty demand a more exquisite or a more choice toy.

The massive GOLD BRACELET, resplendent with jewels, which forms the

subject of our illustration on this page, is from the exhibition of oriental jewelry in the Turkish Court at the Centennial. There is something quite barbaric in the splendor of the jewels and the richness of the ornamentation, and even the clasp by which the ends are bound together is different from the fastenings adopted by our jewelers. As a Turkish woman's fortune consists chiefly in her personal ornaments, the ingenuity of the Turkish artisans is taxed to the utmost to make these objects as rich and costly as possible, and in this instance the workman has made a jewel which even the favorite of the Sultan would treasure.



Gold Bracelet: Turkish Court.

Doubtless many of our readers will recognize in our illustration on page 313, the beautiful STAINED GLASS WINDOW exhibited by F. X. ZETTLER, OF MUNICH, in one of the northern windows of Memorial Hall. This elaborate composition, in the execution of which the perfection of the art, as it now exists, was manifest, attracted a great deal of attention from those whose knowledge of the subject enabled them to appreciate the technical difficulties that had been overcome, and also from the unlearned who were simply attracted to it by the richness of the color and the beauty of the design. The work reflects the highest credit on the manufacturer, and was well worthy of the honorable mention it received from the specialists commissioned to pass upon its merits.

It is remarkable that while this art of staining glass is better understood now than in ancient times, one of the chief beauties of the ancient work should have been so often overlooked—that is, a proper regard for the material itself. In ancient glass pictures the shadows, laid on with dark colors and fixed in the fire, were but

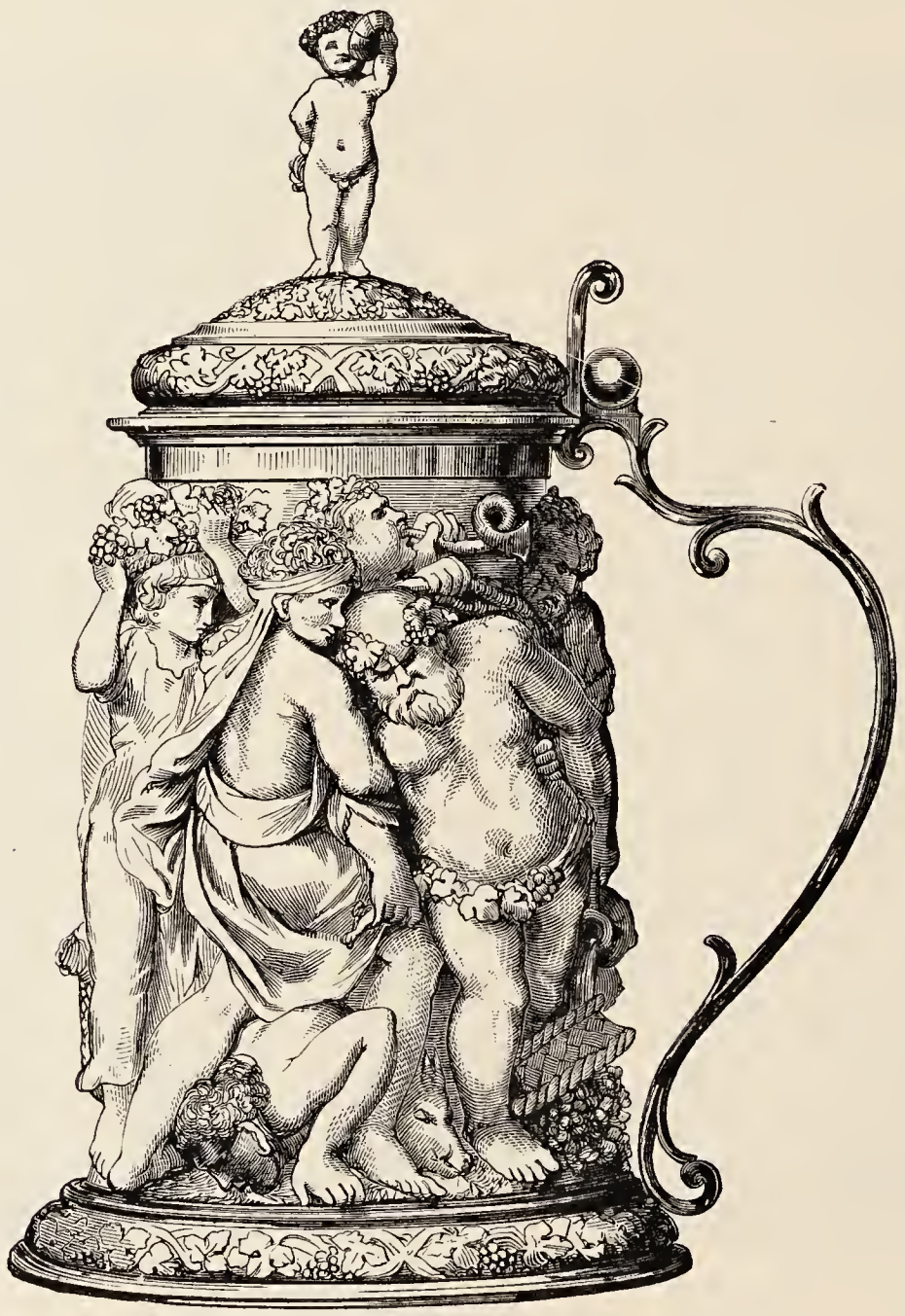
sparingly used, never indeed to the extent obtaining at present, where the primary object of the glass as a means of transmitting light is sacrificed in order to introduce opaque effects of shadow. In the example before us this fault has been carefully avoided.

In the exhibition made by the MESSRS. ELKINGTON, OF BIRMINGHAM, ENG-

Stained Glass Window: F. X. Zettler, Munich.

LAND, was a collection of reproductions in electro-plate of celebrated works in metal, chiefly copied from the magnificent collection belonging to the South Kensington Museum. Here were specimens of the exquisite workmanship of Benvenuto Cellini; cups and other specimens of Roman work in silver, some of which belonged to the famous "Treasure of Hildesheim;" work of the Byzantine goldsmiths; the remarkable St. Patrick's bell; and, in short, notable works

of the goldsmiths and silversmiths of England, France, Germany, Spain, and Italy, from the ninth to the fifteenth century, beside the work of modern artists of fame, and ancient pieces whose origin is the discussion of antiquaries. This collection was, indeed, an excellent illustration of the history of the gold- and



Antique Drinking Cup: Elkington & Co., Birmingham, England.

silversmiths' art, and as such invaluable for purposes of study. The reproduction of the articles by the electrotype process insured absolute exactness in every detail in the duplicate, and where the originals had jewel enrichments the copy was supplied with perfect imitations of the gems. No amount of money could buy out of hand a similar collection of originals, and such another could only be acquired in time by actively competing at every sale with the

museums of Europe; but by purchasing these duplicates, which they obtained at a moderate price, our Pennsylvania Museum and School of Industrial Art have secured to this city a collection quite as invaluable for purposes of instruction, and perhaps even better adapted for these ends than the originals themselves.

Antique Chalice: Elkington & Co.

On page 314 we engrave an ANTIQUE DRINKING CUP, taken from this collection, which gives an admirable idea of the perfectness of the ELKINGTON reproduction. On the lid of the piece is perched a little Bacchus, wreathed and drinking from a bowl. Around the circumference of the cup is a group, executed in very high relief, representing a Bacchic orgie. Male and female figures are shown in every stage of inebriety. One, an old man, his bald brows crowned with vine-leaves, staggers helplessly, though supported by his companions. The wine falls wasted to the ground from the vessel held carelessly in his hand. Another, overcome by liquor, sprawls helplessly on the ground beside a swine. A satyr looks on in grim and malignant derision. A young female comes forward bearing a basket of fruit on her shoulder, and a companion heralds her approach by blowing lustily on his horn. The work is executed with great spirit and true artistic feeling. The grouping of the figure is conceived with fine skill, and the treatment throughout is admirable. In the minor details, the ornamentation is confined to bands and scrolls, in which the leaf and fruit of the grape are a motive. The handle is of the simplest description; yet here too the sugges-

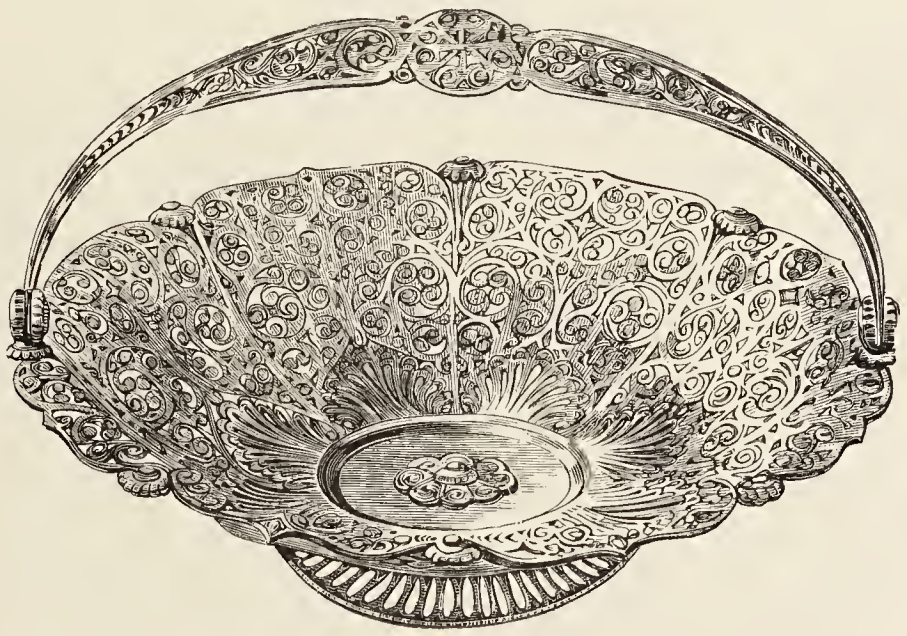
tion of the vine is conveyed by the reverse curves and the points as in the grape tendrils. Though we are not informed concerning the original of this piece, we should judge that it was of German workmanship, late in the sixteenth century, when the Italian style and manner had become incorporated with the earlier national feeling.

Cellini Shield and Helmet: Italian Court.

Our illustration on page 315 is another example of ancient metal work taken from the collection of the MESSRS. ELKINGTON, above referred to. It is an antique English CHALICE, remarkable for the extreme beauty of its design and ornamentation. The detail of this fine cup could hardly be intelligently described in words; nor is it worth while to attempt it here. With the illustration before us, the reader will observe for himself the incised work on the bands around the bowl and cover and the beautiful chasing on the pedestal. We would say a word, however, about the English gold- and silver-work of old times. Although much was destroyed during the period of the Reformation, by far the largest proportion of the articles remaining to us are the vessels used for the purposes of church decoration and use. Beside these are the cups and vessels manufactured for the guilds or great corporations, which must have been used in great quantities. In the older specimens the date of manufacture cannot always be fixed with certainty, but after the beginning of the fifteenth century, when hall-marks began to be used, there is no trouble in fixing the date. Lists of these have been prepared by the South Kensington

Museum, where they can be consulted by those wishing to investigate any particular mark.

The next examples which we have selected from this fine collection of ELKINGTON reproductions are the SHIELD AND HELMET engraved on page 316. These are the workmanship of Benvenuto Cellini, the best known of all the metal-workers of the sixteenth century. This famous artist "was born in 1500, and having spent some years as an apprentice in one or two of the best workshops of Florence, he worked in several towns of Italy. As time passed he established the highest reputation, and was largely employed at Rome by Pope



Silver Basket: Trostrup, Norway.

Clement VII. Unfortunately Cellini was ordered by that pope to destroy as well as to make; and to his hand we must trace the destruction of numberless artistic treasures which probably might, or at least some among them, have come down to our own days. Whilst Clement was besieged in the castle of St. Angelo, Cellini tells us in his memoirs that he received orders to unset all the precious stones that were upon the tiaras, the sacred vessels, and vestments of the pope, and to melt down the gold, of which he obtained two hundredweight. We need not wonder, judging from this instance alone, why it is that so very few pieces of ancient and mediæval gold- and silver-work can now be found. Afterward Cellini went to France and was patronized by Francis I; yet, though he executed there many splendid works, only one can be identified—a gold salt-cellar, preserved in the museum at Vienna."

Cellini, although not the only goldsmith of his time, was undoubtedly the most famous. The number of pieces attributed to his hand are among the precious examples of his art in the museums of Europe. He lived in an age when the workmen of his craft found constant occupation, and when their work was esteemed at its full artistic value. The jewelry and plate of this period are simply superb, but even these are rivaled by the magnificent suits of armor worn by the nobility, in making which the very best skill of the metal-worker was employed. Nothing could illustrate this better than the shield and helmet

Krugg Jugs: Austrian Court.

before us. In execution and finish they stand unsurpassed, and the beauty of the design is manifest.

As an example of the workmanship of the silversmiths of Norway, we illustrate on page 317 a SILVER BASKET, made by TROSTRUP, OF CHRISTIANIA. Like all the other examples of industrial art exhibited by that nation, this basket evidences a fine appreciation of artistic taste and a cultivation of national feeling in design rather than a servile copying of foreign styles. The ornamentation of this basket is admirable; the pattern is exceedingly graceful and rich, and appropriate to the material in which it is wrought and the use for which the article is designed. There is just sufficient openness in it to suggest lightness and solidity, strength as well as grace. The shape of the piece, too,

is elegant in its simplicity, and makes it a handsome ornament to the table.

The quartette of KRUGG JUGS, which we illustrate on page 318, were made by that celebrated manufacturer, and exhibited in the Austrian Court at the Centennial. These jugs are of fäience and gris, and may be accepted as examples of the curious forms and styles of decoration at one time so popular and so much sought after.

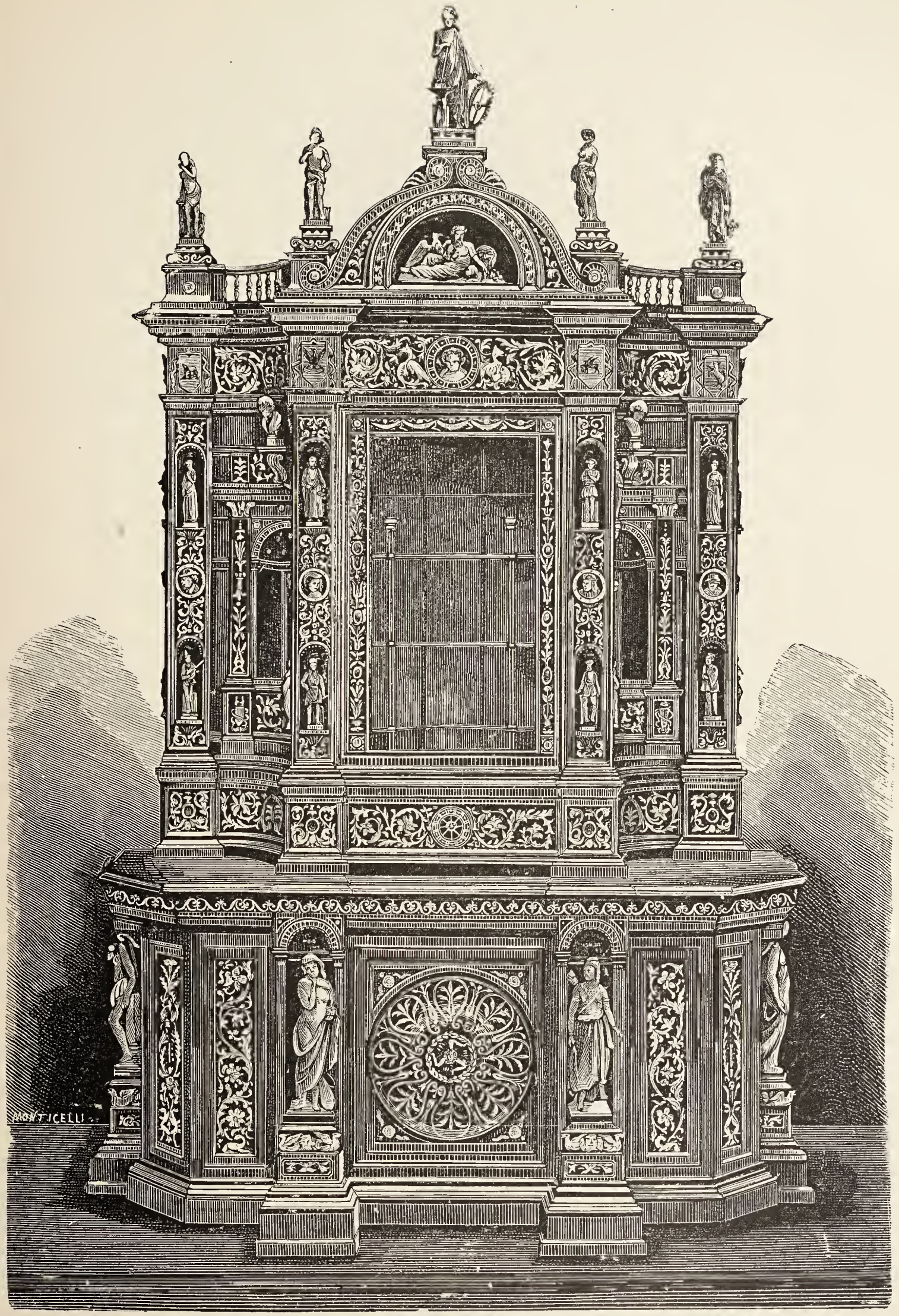
Lambeth Fäience: Doulton & Co., England.

The first represents a warrior in his coat of mail, his helmet, which forms the lid of the jug, upon his head, his back and belly protected by armor. It is a quaint conceit, and one that the fat knight Sir John Falstaff would have loved. The second jug and third are of a more ancient pattern. The surface of the first is divided into a number of medallions, in which are little groups of figures illustrating scripture subjects. We recognize in the medallions seen in the engraving, Rebecca at the well, the daughter of Herodius, and the Widow's son restored to life. Probably, could we see the central medallion on the front, we should discover the tableaux of the Nativity or the Crucifixion. But though these vessels bear such subjects on their face, they were used in many a jolly carouse. The work on this jug is perhaps finer and

more minute than on any of the others, although the features of the figures in the next piece are sharply and clearly defined. In this piece it will be observed that there are several costumed figures, which in the originals are always of value, as illustrating the dress of the time in which the jugs were made. The fourth one of this group is of a pattern now again popular. A band or zone with figures of gods and goddesses surrounds the body of the piece, which is moulded to represent a woven surface. A narrow border, decorated with a pretty flower-pattern, encircles the rim, which is surmounted by a flat cover. As has been indicated in these descriptions, all of these jugs are either copied from or designed after antique models.

The Lambeth fäience, manufactured by DOULTON & CO., OF ENGLAND, is already familiar to our readers by many beautiful examples already engraved; but the collection exhibited by the MESSRS. DOULTON at the Centennial included so many styles and varieties of objects to which the skill of their artists had been applied that the supply of fresh objects for illustration of their famous ware is practically inexhaustible. On page 319, for example, is seen a group of jugs, vases, ewers, etc., of antique and modern shapes, each with some characteristic bit of decoration, giving to the piece a unique value. We say unique, because it must be remembered that each of these pieces is decorated by hand at the artist's pleasure; no two articles are exactly alike. How much better this is in an art point of view than the multiplication of one given style, we need not here consider. It is sufficient to point out that while an object accepted as a model or standard of excellence in form, ornamentation and decoration is always beautiful and loses nothing by duplication, this servile copying is fatal to all artistic activity and progress. The study of the beautiful is always to be commended, but it should be pursued with a view to directing original ability in the proper directions and subject to the acknowledged canons of art. Here and there in the group before us we recognize examples of the pottery known as Doulton-ware, which in its way is quite as beautiful as the Lambeth fäience.

In wandering through the several European courts at the Centennial, the American visitor, whose experience of civilization had been confined to this country, gained for the first time a realizing sense of the luxury of the old world. It is true that the homes of our wealthy classes are crowded with



Ebony Inlaid Cabinet: S. Coco, Italian Court.

objets de luxe and master works of great artists brought from abroad, but never before had the furniture for palaces, the magnificent carved pieces, the exquisite textiles, the costly porcelains such as we all had read about, been open to the general view. Every nation contributed of her best and choicest objects in honor of our Centennial Exhibition, and many of the *chefs d'œuvre* there displayed now adorn the palaces of Europe as well as our own palatial homes.

One of these pieces, an EBONY INLAID CABINET, manufactured by S. COCO, OF FLORENCE, and exhibited in the Italian Court, is seen in the engraving on page 321.

We can readily imagine the magnificence of the apartment in which such a piece of furniture as this should be placed. The mere cost of the mechanical labor in constructing this cabinet, without considering the price paid for the artistic work, must have been very great. Its details cannot be appreciated without careful study. Each statuette—and there are seventeen of them, not including the busts and the central group—is a perfect work in itself. In the panels are medallions with portraits of master artists in music and sculpture and painting inlaid in the wood. Wherever the eye rests there is some beautiful piece of carving or design to hold the attention; while looked upon at a sufficient distance for the effect of the whole to be taken in at once, the work is seen to be noble in its proportions and free from those *frivolous* ornamentations which so often take away all characteristic form from such elaborate constructions as this.

In the English Court at the Centennial was an exhibit composed entirely of objects, principally of personal ornaments, made from the Irish bog-oak. This wood, while coarser in grain than ebony, is nearly as hard, and after being submitted to a certain process becomes quite as black and lustrous. The root of the tree is most esteemed in the manufacture of these small articles, as it is harder and closer-grained than the trunk and branches. After being thoroughly dried and seasoned it is cut into blocks and given to the carvers. The principal seat of the manufacture of the ornaments is in Dublin. The personal ornaments mostly are mounted in red gold, which makes a rich contrast with the black wood. Much skill is displayed by the carvers, who copy natural objects, such as leaves, flowers, ferns, birds, butterflies, etc., or exercise their

ingenuity in devising conventional and geometric patterns. A very favorite object with them is the shamrock. On this page we engrave several examples of these bog-oak ornaments.

The artistic excellence of Japanese workmanship is finely illustrated in the BRONZE LAMP engraved on page 324. The modeling of the bird is most spirited and life-like. The arrangement of the feathers, the curve of the neck, the muscles of the legs, the erect position, the balance, all show a careful study of nature and a thorough knowledge of expression. The detail work is marvelously minute without any triviality. The feathering of the body is suggested rather than imitated; the texture of the

Irish Bog-Oak Brooches: English Court.

long plumes in the wings and tail is indicated by a few strong lines. Nor is the least admirable part of this work the portion which plays the part of the lamp. In treating this, where so many spoil the whole effect by adding some disproportioned and inharmonious contrivance, our artist has rather added to the character and enhanced the beauty of his work. His stork, in seizing at an eel, has grasped the lower portion of a lily as well as the fish in his strong bill, and torn the plant up by the roots. The open flower itself forms a vase for the lamp, while its leaves and blossoms make a graceful ornament below. Here again we see the wonderful observation of the Japanese in their

study of natural objects—this time, however, coupled with that subtle desire to give a grotesque turn to the work, which is their great characteristic. The lily-plant is somewhat conventionalized, and the root writhes about as if sensible of the same fears which animate the fish; while to the stork is given an expression of amazement which plainly questions, What manner of monster have I captured, this time?

Bronze Lamp: Japanese Court.

A fine example of ornamental BOOKBINDING, an art too much neglected in the present day, is given in our engraving on page 325. It was one of the fine display made by LORTIC, OF PARIS, which attracted much attention from those interested in this subject. The design is a conventional flower and leaf pattern twined about a frame-work which is a geometric development of the parts forming the medallion in the centre. The whole is most gracefully treated, and is in admirable contrast to those foolish conceits that aim to attract to the contents of the book without any regard to artistic fitness in design.

Doubtless it is well, when, possible to give some suggestion of what is in a book by the design upon the cover, but the desire to do this, and further to attract to the contents by making the outside attractive, has introduced some most meretricious notions into bookbinding establishments. It is bad enough to see a Book of Common Prayer with a looking-glass bound into one of its sides, but this is not as bad, in an artistic and workmanlike sense, as to see a tiny volume for the pocket hinged and bossed like the portly mediæval tomes whose weight and rich carving required these protections.

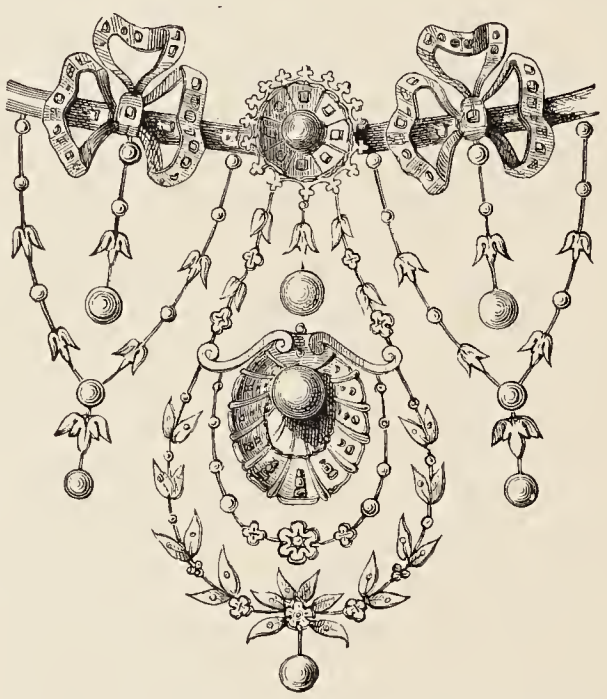
On pages 326 and 327 we have engraved examples of the JEWELRY

manufactured by BELLEZZA, OF ROME. The first is a graceful, thread-like ornament, a web in which jewels are caught, like dewdrops in the net of the spider. With every movement the delicate gold filaments binding the jewels are set in motion, and the gems dance and dazzle in the light. Observe, too, how ingeniously the artist has contrived to harmonize the lines of his design, making

Example of Artistic Book-binding: M. Lortic, Paris.

them all circle about one central ornament, which contains the largest and most brilliant gem of all. His task was to display to the greatest advantage a number of jewels. Neither gold nor enamel-work nor ornamental-work of any kind was to interfere with this primary object; and as the play of light on the surface of a jewel adds to its attractiveness, it was necessary to set them so that they should be sensitive to any, the least motion. See how this has been

accomplished. From the bar of gold forming the circlet of the necklace they are suspended by threads of gold, with dainty gold leaflets between each pair of jewels. In the centre of the bar is a rosette of delicate workmanship and some elaborateness, from which are pendant the chief jewel and its encircling bands. The second of these bands, which is the longer, is made to resemble the spray of some delicate plant. A forget-me-not is suspended from the centre of the line within. On either side of this central design are ribbon-like bands of gold, looped together into a knot, from which depends a single thread of gold, strung with jewels, hanging between other and longer threads, which are joined together below into one, a leaf and jewel marking the point of junction.



Portion of a Necklace: N. A. Bellezza, Rome.

The other example is of a novel and more elaborate style than the former. A magnificent central jewel, encircled with a cable of twisted gold, forms the central ornament. The whole is suspended from the band of the necklace by broad gold bands decorated with fine chasing. On either side are suspended chains of a peculiar design, from which radiate long golden spicules, their surfaces covered with small projections, and resembling in shape and size the delicate "needle-shells" found on the southern sea-coast. The effect of the whole, the great flashing jewel, the heavy cable of red gold, and the scintillating rays on either side, is rich to gorgeousness, and suggests something of the splendor of ornament affected by the women of the East.

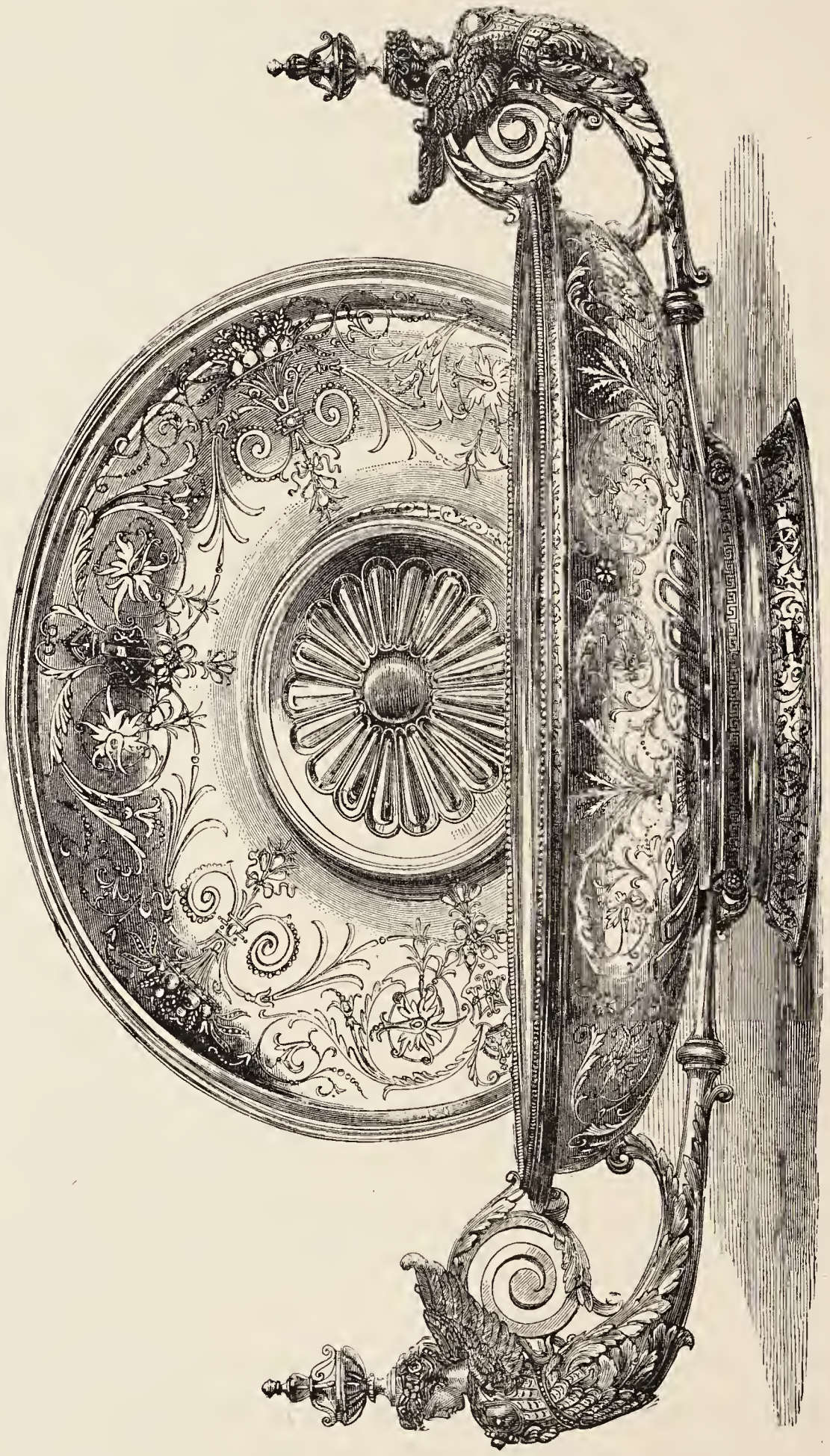
The JARDINIERE and PLAQUE engraved on page 328 are selected as specimens of the glassware exhibited by LOBMEYR, OF VIENNA. Every one who visited the Centennial will remember that very remarkable display made by this manufacturer in the Austrian Court of the Main Building. Glass in almost every imaginable form was there, a bewildering mass of color and glitter and sparkle. Indeed, we fancy that where so much was crowded together, but few persons really took in more than the general effect, being quite unable to

examine in detail a tenth part of the curious and beautiful things there to be seen. Here, for instance, are two objects which are worthy of careful study, and which will excite the admiration of every one, now that they are seen by themselves; yet these and a hundred other beautiful objects were simply lost among the numberless specimens of his art that crowded LOBMEYR'S stalls. It was indeed the fault of the Exhibition, if it had a fault, that it was too vast in its plan and too much elaborated in its details. No one who has ever talked with another on any given department can have failed to remark how many things the one saw that the other did not. It was simply a physical impossibility to see an object, the while the mind was searching for it. We are not sure that this embarrassment of riches could have been avoided, or that it would have been wise to attempt it; yet we think that the exhibitions of the future will look more towards quality than quantity; that the commissioners of the several nations will be asked to exercise a wise discretion in accepting exhibits, and confine their selections to what may be worthily exhibited as typical examples of art and industry, rejecting all duplicates. We believe, indeed, that France intends to adopt some such regulation as this in her forthcoming Exhibition.

everything we specially desired to see. The eye grew weary and refused to perform its functions. The gaze would be centered unconsciously upon

Portion of a Necklace: N. A. Bellezza, Rome.

Returning to the subjects of our illustration, we must first remind the reader that they are made entirely of glass. The Plaque is made in two layers—one of colored glass and the other of clear crystal. The colored surface is in fact a red glass enamel upon the undermost and thicker body. The centre, in which a rosette has been cut, and the rim with its mouldings, are not enameled, however, so that the effect of the colored portion is as if it was

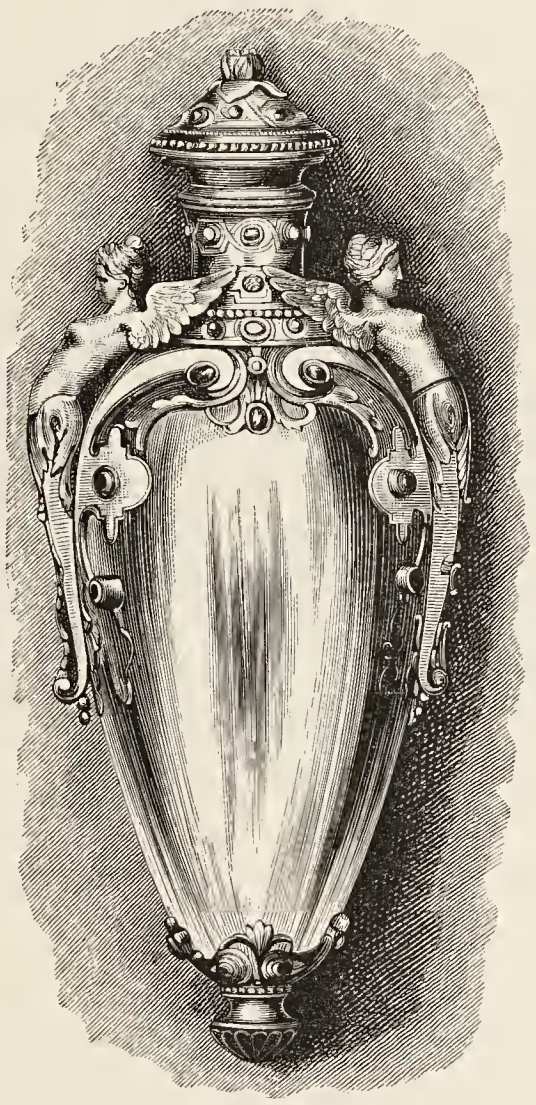


Jardiniere and Plaque: Lobmeyr & Co., Vienna.

separate and detached, and simply rested upon the crystal. This delusion is increased by the beautiful scroll decoration seen in the engraving, which is accomplished by cutting through the enamel to the crystal surface beneath. By

this means a very brilliant effect is produced, and a couple of these plaques hung against a wall would form a most pleasing ornament to a parlor or library.

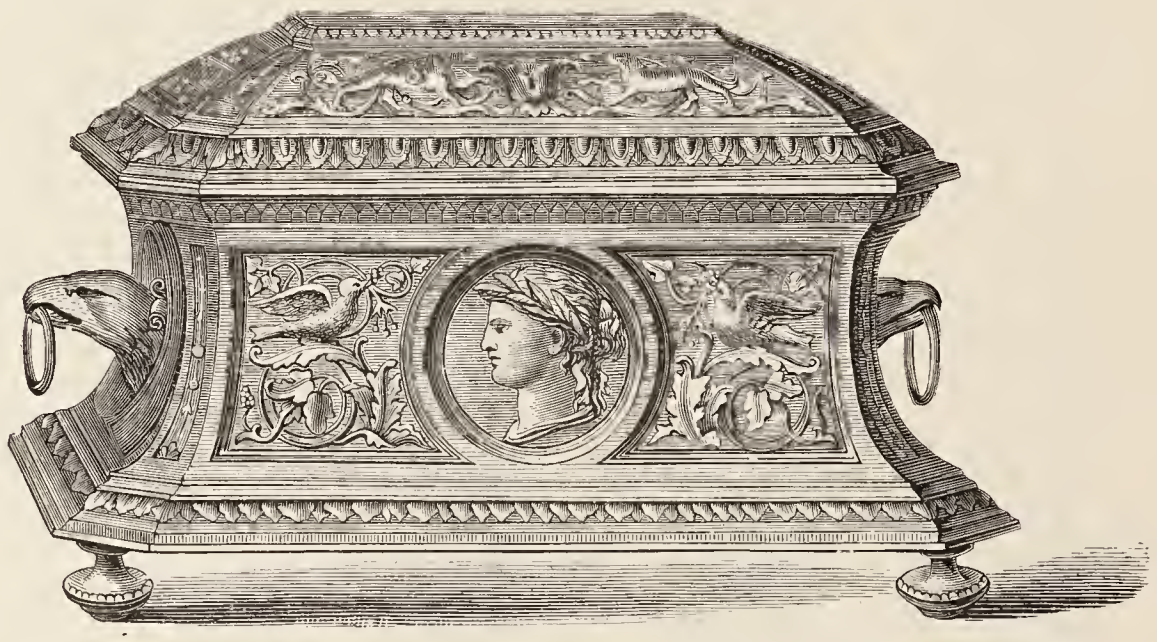
The Jardiniere is a more elaborate work, and in the decoration of its surface the engraver has exerted himself to make it a masterpiece. Each tendril and leaf-point and flower-petal is executed with the greatest nicety and skill. The winged female figures at the ends of the vase, serving as handles, are of glass, treated in that manner which roughens its surface and makes it white, opaque and without lustre. By this means the fine modeling of the features and the rendering of the texture of the wings and garment can be seen to better advantage than if the surface was clear and polished. Most of the other ornamental accessories connected with these figures are of glass of different colors, and a judicious use is made of gilding in order to heighten the already brilliant effect. Simply as an ornament for a drawing-room table this finely executed work would attract attention, but filled with flowers and ferns, and placed as a centre-piece on the dining-table, it would be superb.



Flaçon d'Odeur: French Court.

A dainty and exquisite toy, a FLAÇON D'ODEUR, with gold mountings, is illustrated in our engraving on this page. It is of French manufacture, and like all the costly trifles produced by that nation there is an artistic excellence and finish in the workmanship that renders its origin almost unmistakable. Moreover, in producing things of this kind the fancy of the artist has full play, and he can give expression to any caprice or thought that presents itself. The object is so purely ornamental that the consideration of use is of little consequence. Hence in French jewelry and personal ornaments of all kinds we find novelties constantly tempting us, and while many of the objects

are *bizarre* to our soberer judgments, the major portion show an intimate knowledge and study of the art of design, and very few indeed are without artistic excellence of some kind. French artists and artisans seem indeed to have learned that what is worth doing at all is worth doing well. In this FLAÇON D'ODEUR we have an admirable and spirited design executed in an admirable and spirited manner. Even the small knob which protects the base of the phial is as perfect in its proportions as the elaborate work above it; and as if the sumptuousness of the gold and modeling was not enough, jewels have been added wherever an effective point could be found.



Silver Jewel-Casket: Zimmerman & Co., Hanau.

Next we have on this page a JEWEL CASE, made by ZIMMERMAN & CO., OF HANAU, and exhibited in the German Court. This case or casket is of solid silver, about twelve inches long, six inches wide, and as many high. The metal is wrought in *repoussé*. It is an admirable study of purely classical design. Around the sides of the cover is a band with scrolls woven about grotesquely formed animals, forming a continuous pattern such as is seen in ancient friezes. At the ends of the casket are eagles' heads with rings in their beaks for handles. In the front is a medallion containing a female head wreathed with a laurel crown. On either side of this, on the same panel, are vines twining upwards, and doves disporting themselves on the branches. Borders of the pine-apple pattern surround the base and cover of the casket, completing its ornamentation.

The BRASS GATE, which forms the subject of our illustration on page 331,

was part of the enclosure around the stall of MITCHELL, VANCE & CO., OF NEW YORK, in the United States Court. It is an admirable piece of artistic metal-work, a credit alike to the artist who designed it and the workmen who executed it. Use has been considered before ornament in its construction, and we see how true excellence in the former can be allied with simplicity. The material,

Brass Gate: Mitchell, Vance & Co., New York.

too, in which the work is wrought, has not been forgotten, and all the ornamentation is of a perfectly legitimate kind. A vine gives the theme. Strips of metal, forming double reversed helices, the smaller above, the larger below, fill the space within the square of the frame-work with their graceful curves. From the main stem, tendrils branch off, and by their curves give more breadth to the design. Each helix has a flower-shaped terminal, and here and there along the length of the curve are leaf-like projections, all introduced not only with

an eye to the general effect, but to give strength and stability to the whole construction.

The display of ornamental crystal in the English Court was not equal in comparison with the importance of the industry to the display of ornamental pottery, but among the pieces shown were some worthy of illustration as examples of that branch of Industrial Art. On this page, for example, we illustrate a CRYSTAL ÉPERGNE, which for lightness and delicacy of design is noteworthy. The base consists of a broad shallow bowl, suitable for fruits. From its centre rises an ornamental pedestal to a dish, in which flowers and comfits can be placed, and above this rises a tall, slender, trumpet-shaped vase for flowers and grasses. The vase, the dish and the bowl are of the clearest crystal, the two latter engraved with a graceful pattern, as delicate and fine as the tracery of a cobweb.

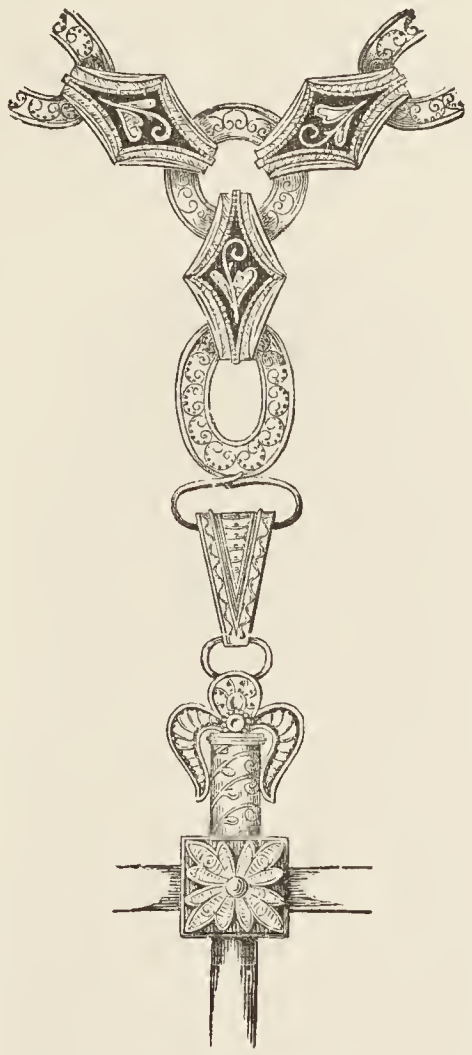
Crystal Épergne: English Court.

Two examples of JEWELRY, the one from Rome and the other from Milan, are shown in our engravings on page 333. The lower one is a portion of a necklace, as purely classic in style as it is possible to obtain. Indeed, we should not be surprised if it was a reproduction of some one of the ancient examples. It consists simply of a series of pendant gold ornaments, shaped like amphoræ, linked together by means of perfectly plain bands. Nothing could be more severely pure than this design, and yet its quiet elegance is apparent.

Beautiful of its kind, yet in marked contrast with the one below it, is the Necklace and Cross from Rome. Here the precious metal is made simply a vehicle for the display of the most brilliant enamels and the subtlest skill of the engraver's chisel. Gems, too, are introduced as occasion offers, and aside from the beauty of the design, the ornament will be admired as an example of the perfection of technical execution.

On pages 334 and 335 are two more examples of ENGLISH GLASS. The

first is a specimen of opalized glass, reflecting the peculiar tints of that gem from its surface. On the side is a medallion head executed in relief, surrounded by a wreath of ferns and flowers delicately indicated by light etching. The piece is of that finely symmetrical shape which is always most observable in glass which is blown. The second example is a specimen of glass-cutting. Here lustre and prismatic beauty are obtained by a proper cutting of the facets, and this jewel-like effect is especially noticeable in the handle of this decanter.



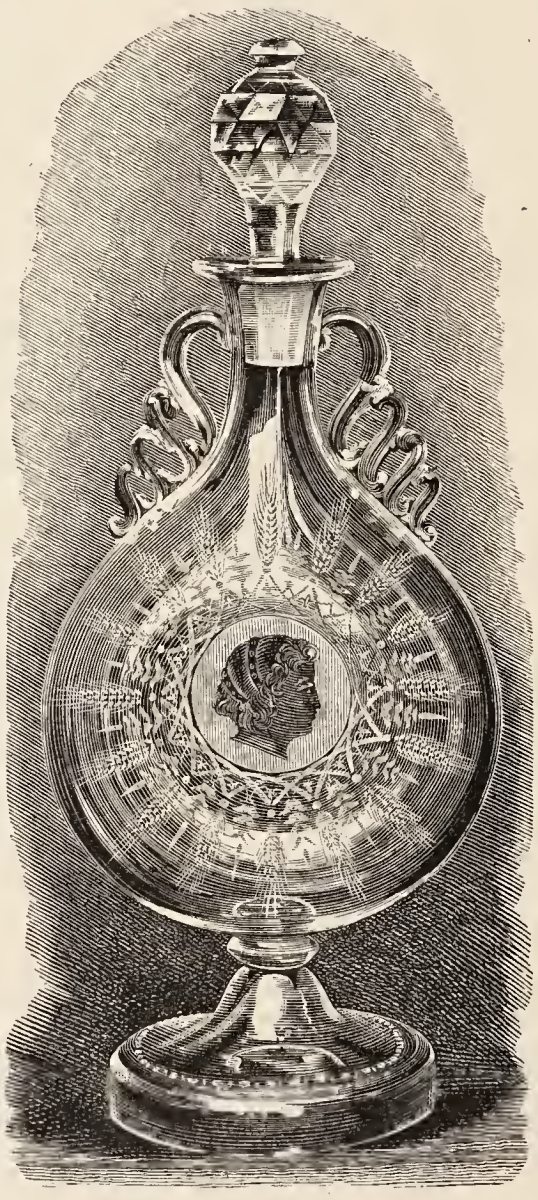
Portion of Necklace and Cross: Salvo & Co., Rome.

Portion of Necklace: Jerardini, Milan.

As examples of the art-pottery of Austria, we engrave on page 336 a group of PORCELAIN VASES selected from the exhibition in the Austrian Court. One is much simpler in its decoration than the others, there being but little work in relief upon its surface, and the decorative pattern consisting chiefly of geometric patterns with leaf-sprays between. The second piece of the group is classic in shape and richly decorated, a noteworthy feature in the design being a winged cupid, executed in a most spirited manner and with rare grace. The third vase is, perhaps, the most elaborate of the three. The sea furnishes the theme for the design. A group of dolphins form the base, and their bodies wound about a sea-plant make the pedestal. Above, the bowl, its edge bound round with sea-weed, is ornamented with four sea-horses bending over the margin, as if contemplating a swim within the basin. Shells and

coral and other symbols of the ocean are grouped about this piece, which is altogether an extremely well-conceived piece of work.

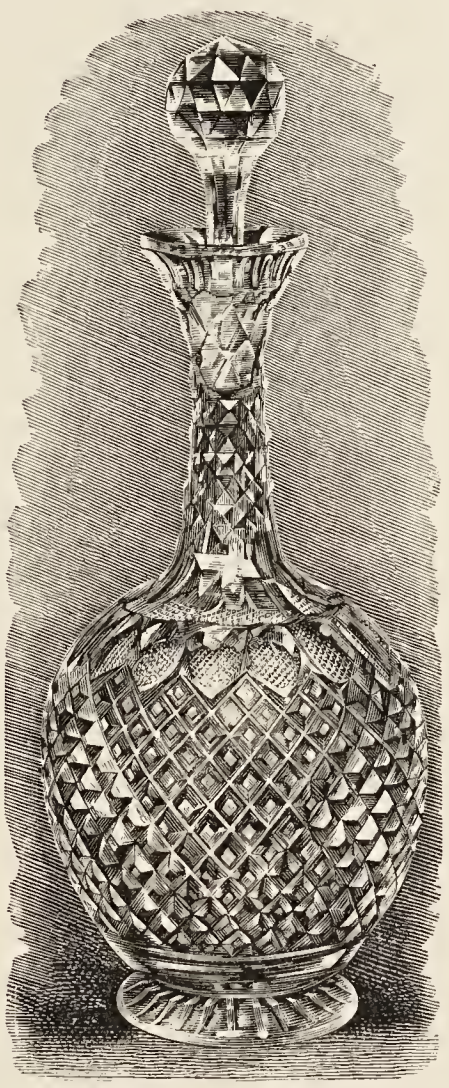
Of all the arts, that of the potter has perhaps the widest and most diverse range. The ornamental and decorative objects which he fashions are only less numerous than the humbler articles of pottery which obtain all over the world. The growth of civilization can be traced in the progress of the fictile art through its original crude stages to the production of works the very perfection of artistic skill and excellence. In this country, where nature has supplied the workman with the very best materials for the manufacture of all grades of stoneware, china and porcelain, it is only a question of time and education until we hold a foremost place in this most important manufacture. American manufactures of several kinds are already making their way into foreign markets with surprising rapidity. In a recent report on some American manufactures, the Consul-General of Great Britain says that "in a commercial point of view the United States and Great Britain may be said in certain respects to be changing places, and with a rapidity which no one anticipated, though it has long been perceived that the tendency has been that way. The excellence of some of the American manufactures, particularly of metals and cottons, is manifest, and cannot justly be decried by British importers. On the contrary, sagacious manufacturers who visited the Centennial Exhibition have fully admitted that the decline in wages and raw materials in the United States, and the sample labor-saving appliances, coupled with the intelligence and excellence of the work of the artisan, must of necessity produce a formidable competition with foreign productions." All we need now to cultivate, to excel in the higher and artistic



Crystal Decanter: English Court.

branches of industry, is the intelligence of our workmen. In this particular field of pottery, their artistic instinct must be manifest to every one who visited the American Court and saw the specimens of fictile art exhibited there. Intelligent training and familiarity with the best models would in a few years make the work, which already has the technical excellence necessary, compare favorably with that of foreign nations.

If we remember how absolutely deficient in artistic excellence English pottery was before the days of Wedgwood, we may hope that another such as he may give the needed impetus to our own manufacture. We are speaking now more especially of the fictile art in its ornamental uses; for the part that pottery plays in the production of Wedgwood ware is a subordinate one. The exquisite work made by this master is more allied to sculpture or the glyptic art than to pottery. The gem-cutter's tools were always used to finish and perfect the this unique English ware his great name and fame.



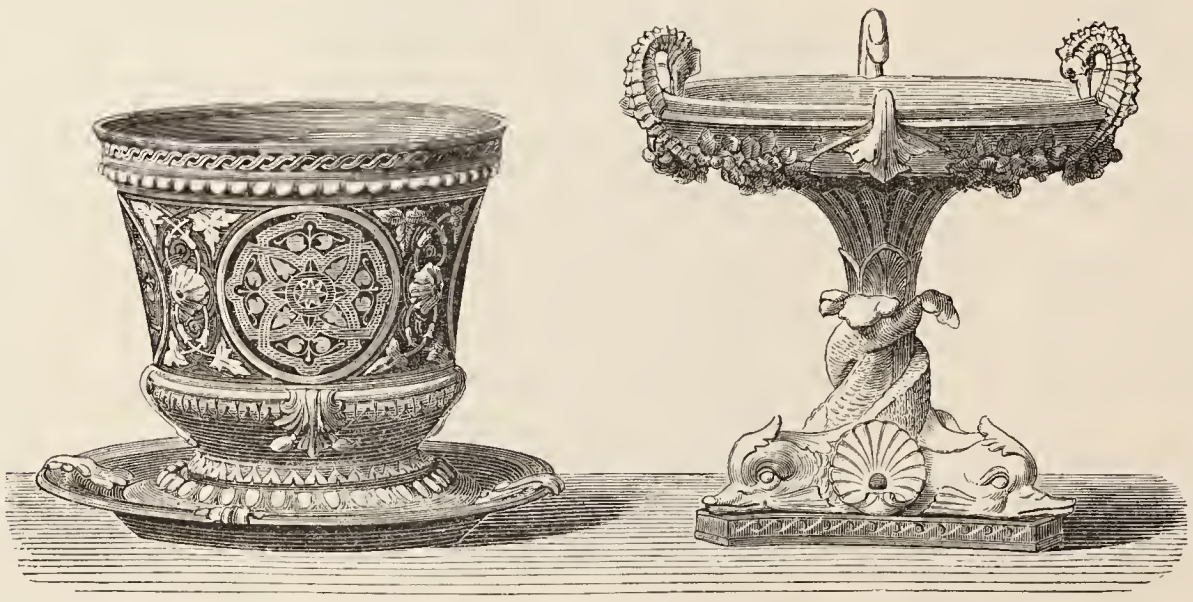
Crystal Decanter: English Court.

potter's work, and by this means it was that the Wedgwood cameos are literally deserving of that name. Wedgwood it must be remembered, besides making minute and exact copies of antique bas-reliefs and alto-reliefs, employed such artists as Flaxman and Pacetti to furnish him with original designs, which he had modeled by Webber, one of the most skillful workmen of his time. It was this aiming after the very best in art that gave the inventor of

It has sometimes been contended that the ceramic art in England reached its highest excellence in these marvelous productions of Wedgwood, but this is certainly too broad and sweeping an assertion. That in this particular form of ornament nothing has since been produced to rival the Wedgwood ware is quite true, but there are other ways in which the art has been brought to the highest perfection, and in a manner, moreover, more in harmony with the traditions and

methods of fictile art, as, for instance, in the *pâte-sur-pâte*, examples of which we have engraved in these pages. Wedgwood discovered new processes and a new art, an art as distinctively national and as important in its way as was the discovery of Lucca della Robbia. His beautiful and ingenious imitation of the Portland or Barberini vase will always remain a monument of excellence in a peculiar art which is now in its decadence; but new methods and other processes of manufacture must not be judged by the former standard.

In Italy there is a movement making to return to the old ways of decorating pottery, and more especially to use the same materials and pigments as formerly. The labor of chemists and students of ceramics is being devoted to



Group of Porcelain Vases: Austrian Court.

a re-discovery of the ancient processes, which surpass all modern work. There was exhibited at the Centennial a small but exceedingly interesting collection of faïence made at a fabrique near Naples, in which the efforts of one man in this direction were illustrated. In making and decorating his wares he endeavored to follow as nearly as possible the traditional methods which produced what are now the treasures of our cabinets. Though the work was somewhat

crude, there was abundant evidence to prove that he was laboring in the right direction. Some of the pigments, the blues and greens in particular, were quite

J. Templeton & Co., Glasgow, Scotland.

as brilliant and of a purer color than those in ordinary use which are commonly imported from Germany. The artist had not reached that point when

he felt that he could attempt the production of the lustered ware, the true majolica, but he was confident that he would attain to that stage in due season.

Our illustration on page 337 represents a section of a CARPET exhibited by MESSRS. J. TEMPLETON & CO., OF GLASGOW, SCOTLAND. The pattern in the centre consists of geometric figures, as graceful and delicate as snow-crystals, symmetrically arranged on a ground of neutral color, but two or three shades darker than the figures themselves. At regular intervals, medallions of a bright, positive color are introduced, on which are small, flower-shaped figures of the same hue as the pattern in the other portion of the fabric. A bright border, with a much lighter ground, surrounds the centre, and makes an effective contrast of color. The design in this portion of the carpet is of a different character from that in the other portion, the designer doubtless having in view the fact that as this part of a floor-covering is subject to less wear or use, a less conventional style of decoration is more admissible. He has therefore given us here a series of garlands and vases, with bouquets of natural flowers along the sides, ending in the corners in wreaths and vignettes.

It is a curious fact that the custom of decorating carpets with flowers, leaves, grass, moss, and the like, strewn over the surface, is comparatively of modern origin, while the pictorial representation of animals, grotesque and fabulous monsters on rugs and floor-cloths can be traced back to a very remote antiquity, even to Babylonian times. These ancient rugs, however, are more properly to be classed as heavy tapestries than carpets. All through Asia the business of carpet-weaving has been carried on for ages, and to this day their hand-woven rugs exceed in richness and harmonious blending of color, and in real excellence of design, the most perfect products of European looms. There was a time in England when the imitations of Turkey carpets produced there were even more expensive than the genuine, but this was owing to the fact that in the imitations worsted yarn was used instead of wool, as in the Turkey carpet.

For many years after the introduction of carpets into Europe, they were esteemed as great luxuries, and, indeed, a floor entirely hidden under a covering of this kind is a caprice of modern times, only made possible by the discovery of a means to manufacture carpet by machinery. Rushes, plaited or strewn smoothly over the floor, was the first step made in this respect towards warmth

Banner and Stole: Belgian Department.

and comfort by our ancestors. Long after the small Eastern rugs were known to Western Europe, the homely straw or rushes continued to be used in most of the reception-chambers of the household.

The first carpet factory of importance in Europe was established in France, from whence the manufacture extended to England and Germany, where there grew up many notable centres for the trade. It was reserved for an American inventor, Mr. E. B. Bigelow, of Boston, to succeed in bringing the aid of machinery to bear upon the production, and so to revolutionize the whole trade. It is now some forty years since this gentleman discovered a means of applying the power-loom to carpet-weaving, and in the next few years, by perfecting his

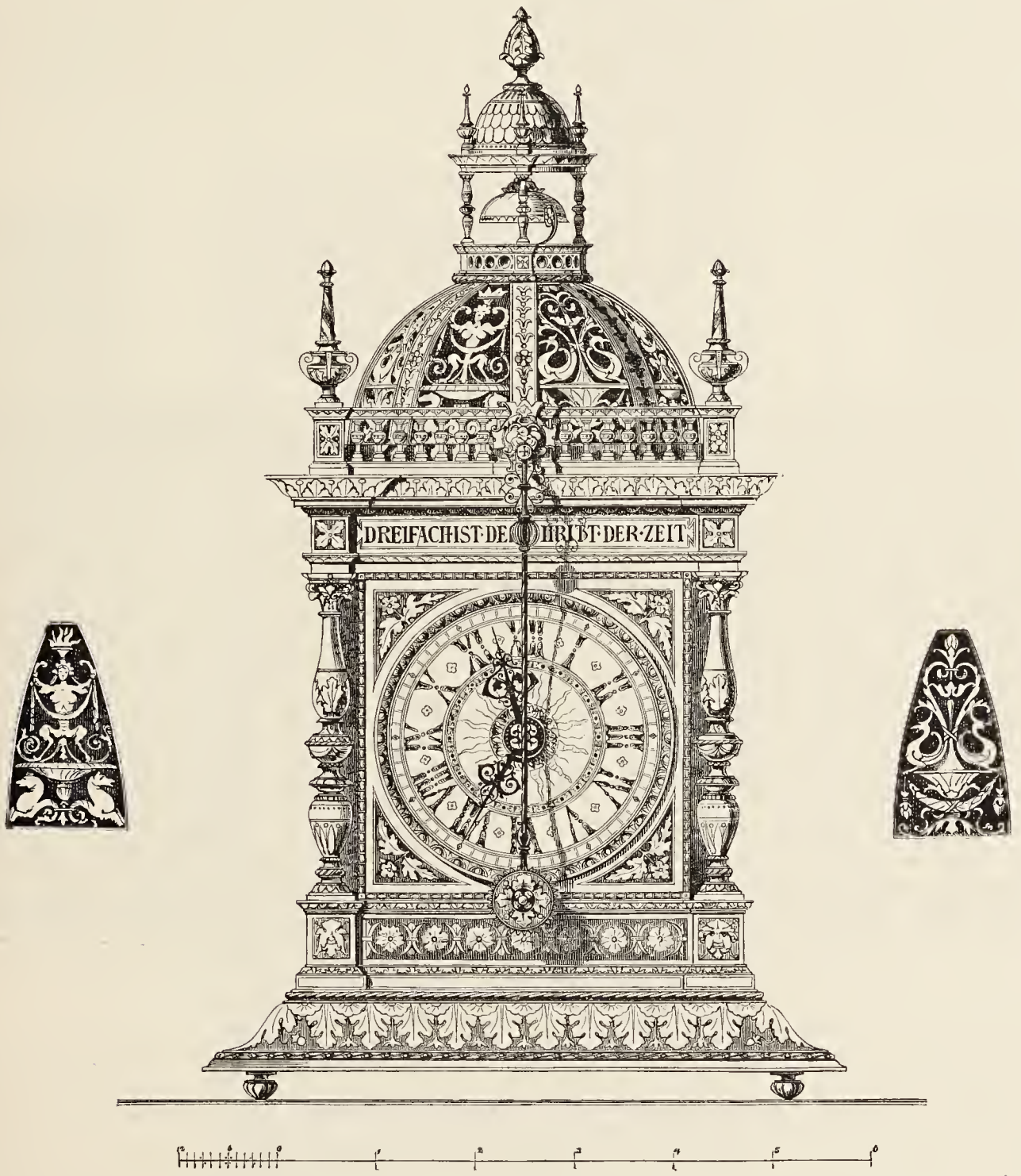
Russian Jewelry: M. Krumbügel, St. Petersburg.

machinery, making it capable of producing the several kinds of carpet from Ingrain to Brussels. This invention, as we have said, revolutionized the business, and has been the means of making what was once a luxury and novelty to the rich, a part of the furniture of the humblest home.

On page 339 we illustrate an ecclesiastical BANNER, exhibited in the Belgian Department of the Exhibition. This fine example of embroidery is intended to figure the grand doctrine of the Atonement, and from the pictorial presentation of the subject in the centre of the banner, through all the symbolic accessories to the design, we have the one theme strongly and unmistakably brought before us.

The intimate connection of the development of this beautiful art of embroidery with the Christian religion is admirably shown in the collections of ecclesiastical vestments preserved in many of the churches and museums of

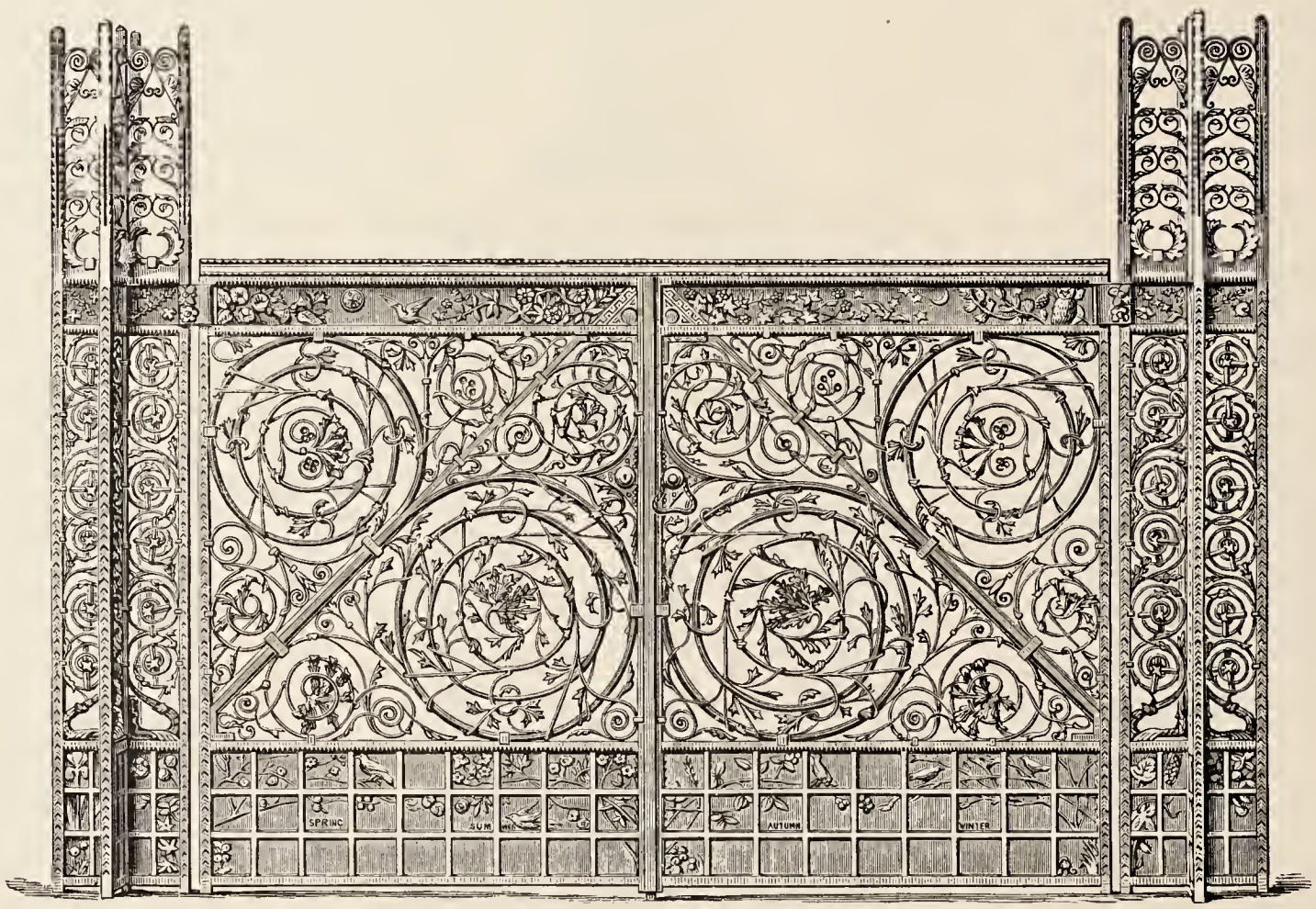
Europe and England. The pious munificence of the rich presented the Church with the most precious stuffs of the loom, enriched with the most cunning skill of the needle. In the schools connected with the monasteries, embroidery was taught, and what is now an art known only to women was in ancient days



Clock: Austrian Court.

largely practised by men. Going further back still, to the times of the Bible, we read of the rich vestments made for the priests who ministered in the holy places, and mention is made of one, Ooliab, the son of Achisamech, of the tribe of Dan, who made vestments for Aaron, showing that the art was even then fostered and encouraged by religion.

On page 340 we illustrate a number of examples of Russian Jewelry, from the exhibit made by M. Krumbügel, of St. Petersburg. There are several very different styles in this group, yet each and all are marked with originality and characteristic treatment. The central pair of ear-rings have a suggestion of French feeling in their design, but not enough of it to allow them to be mistaken for French jewelry. In the other pieces, especially in the right-hand one of the group, the oriental spirit and freedom of design are manifest.

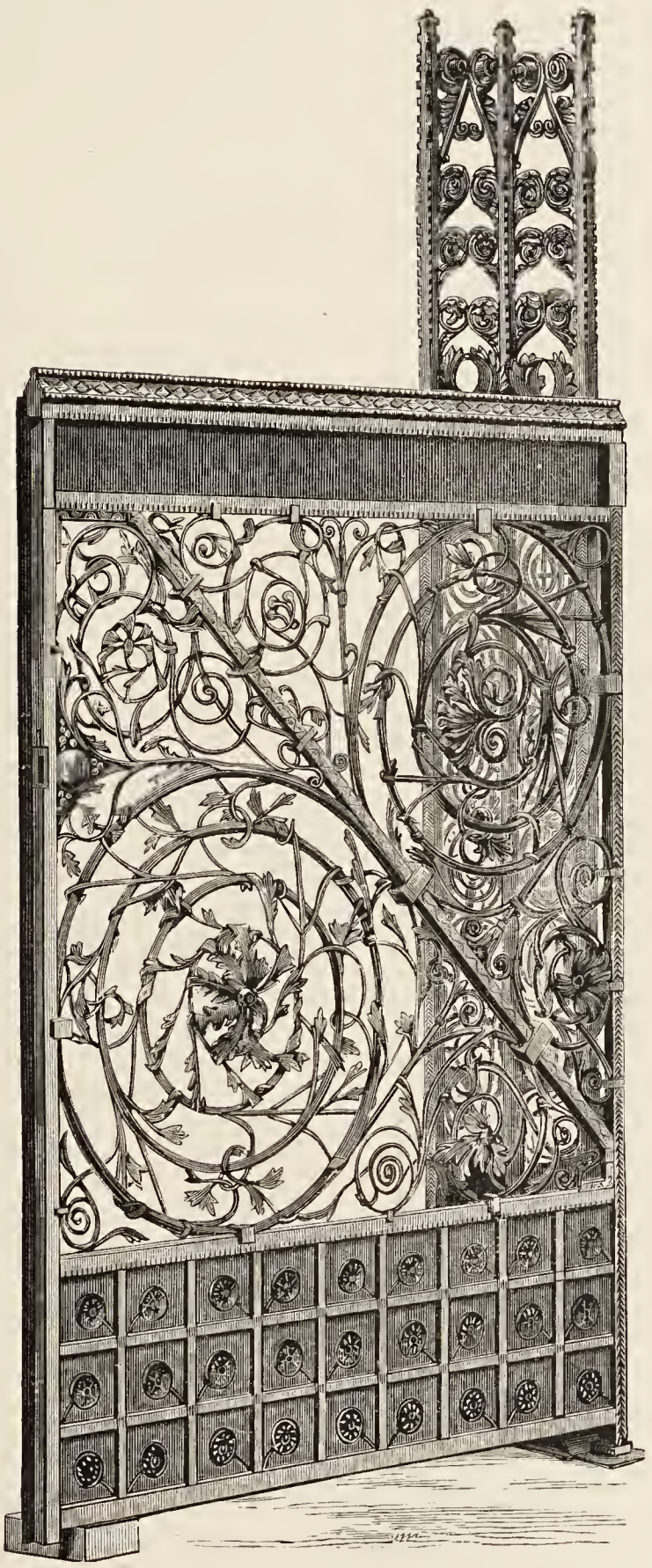


Norwich Gate: Barnard, Bishop & Barnards, Norwich, England.

In execution, the Russian jewelry at the Centennial as a rule did not affect minute and delicate treatment as much as brilliancy of effect and gorgeousness of color. Enamel was freely used whenever a rich contrast could be produced with it, and a profusion of the most brilliant gems was another characteristic of the display.

Until the invention of wheel-clocks moved by weights, which some persons attribute to the genius of Archimedes, the science of horology was in a crude state of development. The clepsydra, or water-clock, was perhaps the most perfect piece of mechanism for measuring time known to the ancients, although

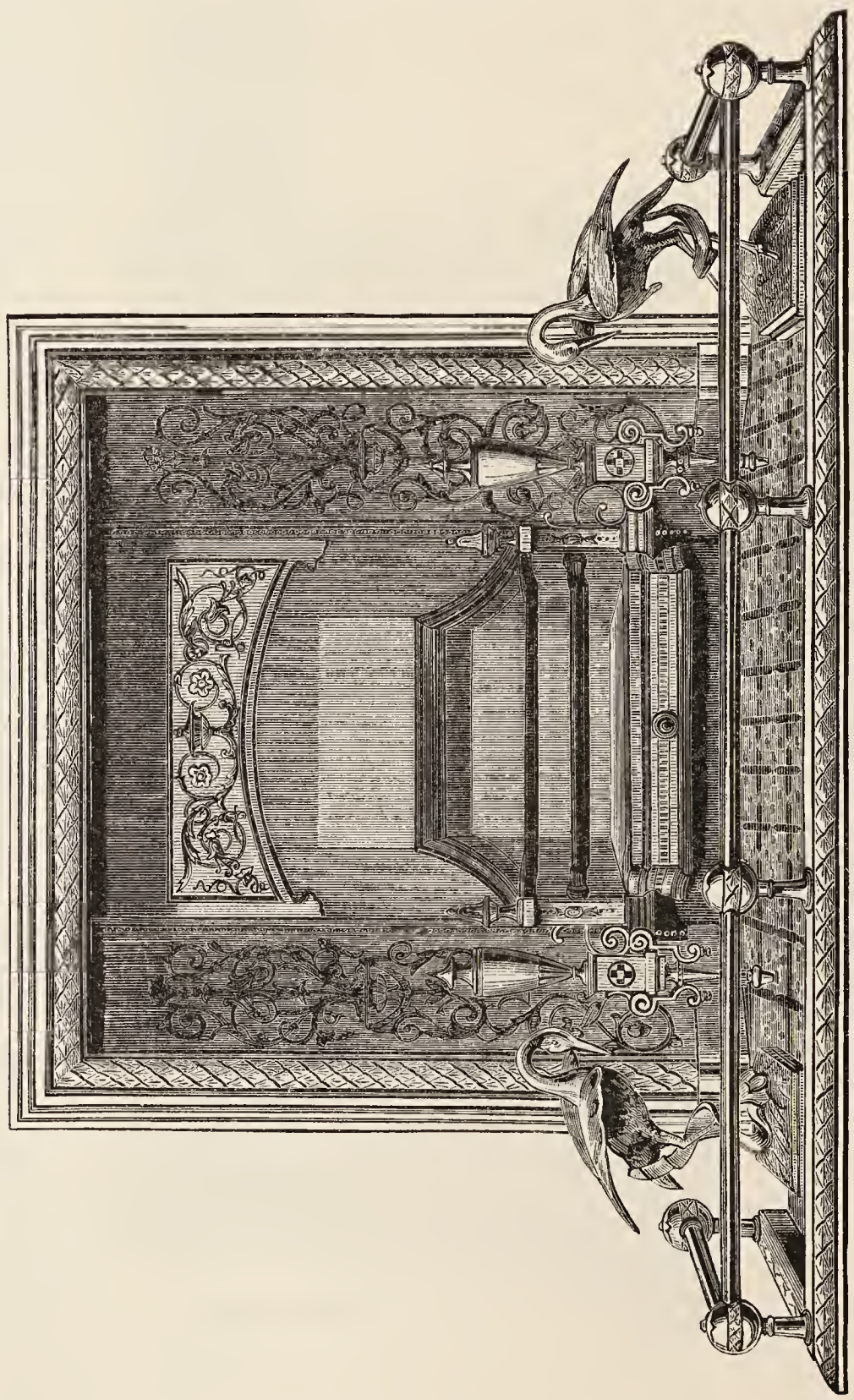
it was not as accurate as the sand-glasses which afterwards came into very general use. The earliest form of clepsydra was a reservoir, usually a transparent vase, filled with water. A small orifice at the bottom allowed the liquid to flow out gradually, the level of its surface in the vessel marking the time. Later a method by which the water was made to drip, drop by drop, upon a wheel, which communicated motion to a statue that pointed with a wand to a disk marked with divisions of time, was invented. Some of these clepsydras were very costly and ingenious, and to these pointing statues may be traced, perhaps, the modern dial with its movable hands. The earliest form of sun-dial by which the time of day was measured was, probably, a plain column erected on some level spot — the instrument known to us as a sun-dial belonging to a much later period.



Enlargement of Norwich Gate: Barnard, Bishop & Barnards.

But all these ancient styles of horologues were superseded by the application to time-markers of machinery moved by weights, and afterwards by springs, and the use of the pendulum with its exact oscillations. With the introduction of the pendulum for this purpose, a new era began in clock-making, and the ingenuity of scientific men was directed to perfecting the methods of its use and making the machinery what it is at present, the perfection of mechanism

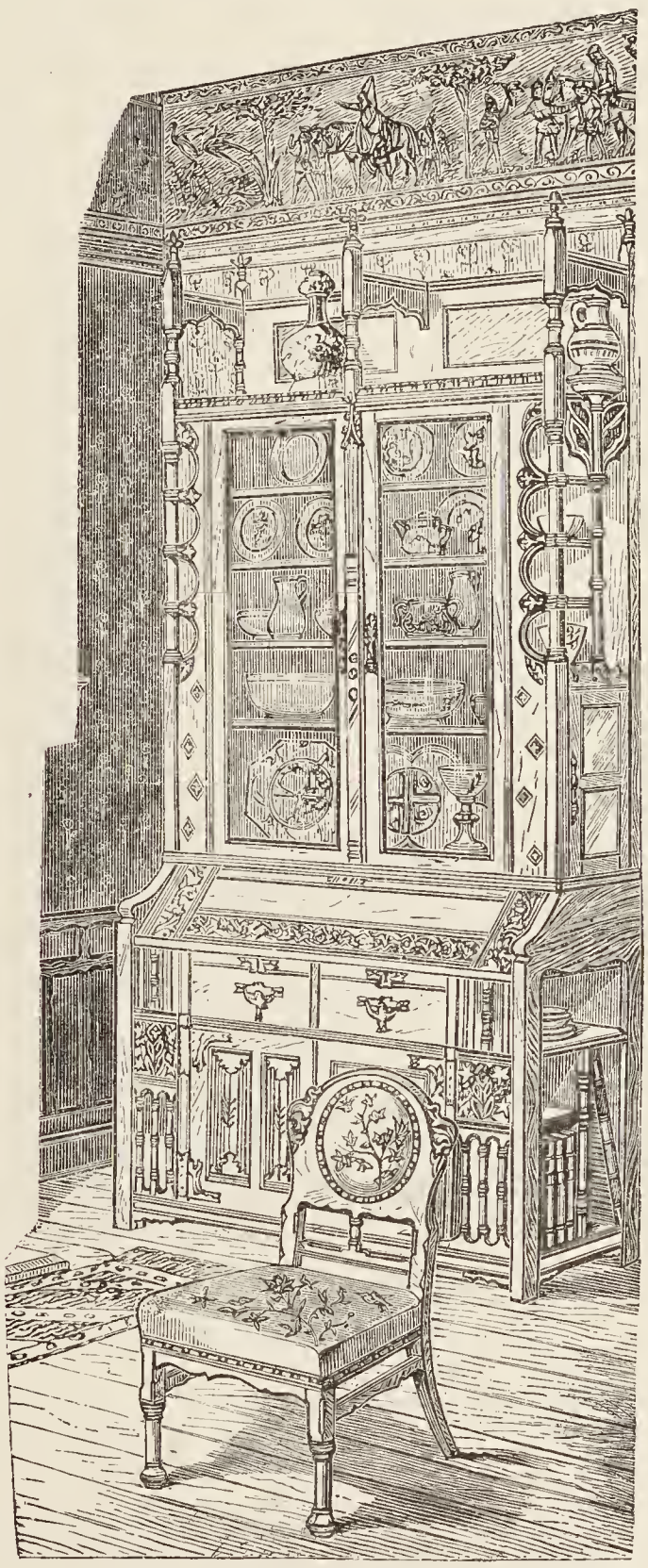
and scientific knowledge. Correct timekeepers, both watches and clocks, are things of such ordinary and universal use now-a-days that few people pause to consider what a triumph of invention the mechanism is. Assuming, as a matter of course, that the works are all right, the purchaser of a costly watch or clock



Fire-place: Steel & Garland, Sheffield.

seeks rather to please his fancy as to the style, shape, size, etc., of the object; and it would be hard to find any article of use or ornament, or both combined, that is offered to the public under so many different shapes and disguises as the modern clock. Almost the whole range of classic sculpture has been made

subservient to its use. Atlas sweats under the weight of its works, and the Laöcoon writhes with it in his belly. A favorite and an excellent style is to insert the works and dial into a pedestal for a statuette usually of bronze. Many of these are exquisite works of art, admirable copies of the antique or modern productions; but by far the greater number are about as poor specimens of ornament as the market affords. Indeed, as a rule, clock-statuary is to be avoided.



Cabinet: Cooper & Holt, London.

On page 341 we illustrate a style of CLOCK, exhibited in the AUSTRIAN COURT at the Exhibition, that makes no pretence of being anything other than what it is, and in which the design and ornament is studied with due reference to the use for which the object is intended. The simplicity of the design is offset by elaborateness in the detail of the decoration, which is rich and well conceived. In the panels of the dome is some very fine work, specimens of which are shown in the vignettes. Above the dome is an open belfry, containing a bell and hammer—which, by the way, in ancient times, was the *clock* of the horologue—so that the vibration of the metal, when the hours are struck, is not muffled, but rings out clearly and with distinctness. Another feature, companionable or distracting, according to one's mood, is the pendulum swinging backward and forward across the face of the dial, attracting the eye by its mute motion to the ever-advancing hands and to the significant legend inscribed above them.

We have already made mention of the admirable display of wrought-iron work in the English Court of the Exhibition, notable examples of which have been illustrated in these pages. Another example, and one well worthy of careful study by those interested in the subject, are the NORWICH GATES, manufactured by BARNARD, BISHOP & BARNARDS, OF NORWICH, ENGLAND, shown on pages 342 and 343. These gates are made of wrought-iron, welded together and secured by wrought-iron bands. Each leaf, tendril, sprig, and branch of the scroll-work was wrought by hand from forged iron. In no instance was

Faïence of Gien et Loiret: French Collective Exhibit.

the die, stamp, mould or matrix used. The work is in every respect creditable to the skill of the artisan and the artist. In considering the design it will be seen that it has two principal features—open scroll-work and panels. For the former the oak and thorn are taken as types, the analysis of their foliage and flowers and method of growth being studied with a view to the ornamental forms to be derived from them. In the same way the ornamentation of the panels in the lower part of the piers is derived from the wheat- and corn-flower, the oat, the barley and wild poppy, the grape, the rose, the purple iris,

the monkshood and wild geranium, with other flowers. In the upper panels are various kinds of heaths, wherein the rebus of the firm—Four Bees—and the monogram of the designer are introduced.

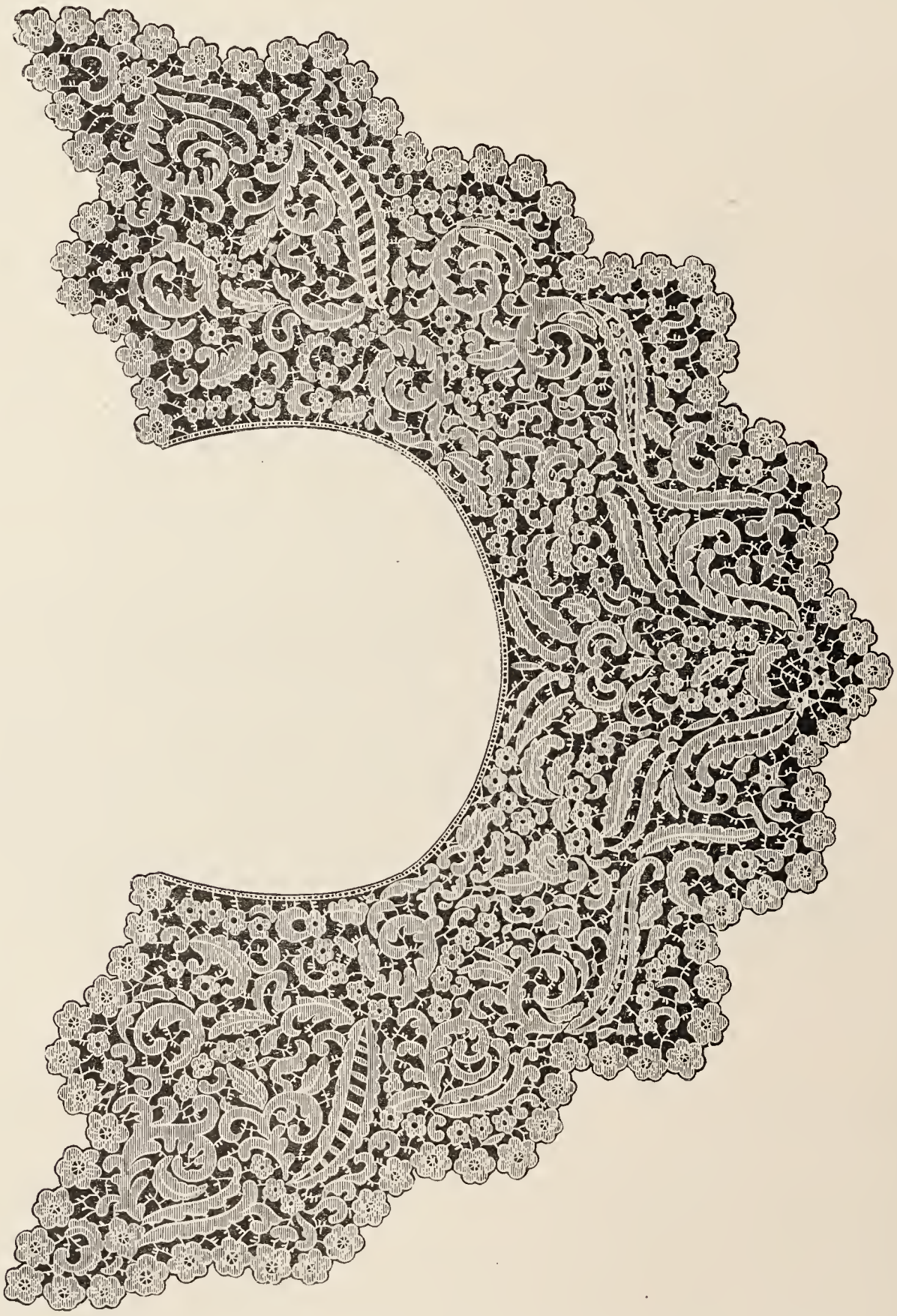
The upper panels of the gates are ornamented on one side with swallows and other birds, and a pattern of apple-blossoms, and with butterflies, moths, may-flies, etc., and a pattern of almond-blossoms. On the other side the corresponding panels contain the convolvulus, honeysuckle, the sun and the lark,

Portion of Curtain: Royal School of Art Needle-work.

symbolizing Day; and the ivy and pine, the owl and the bat, symbolizing Night.

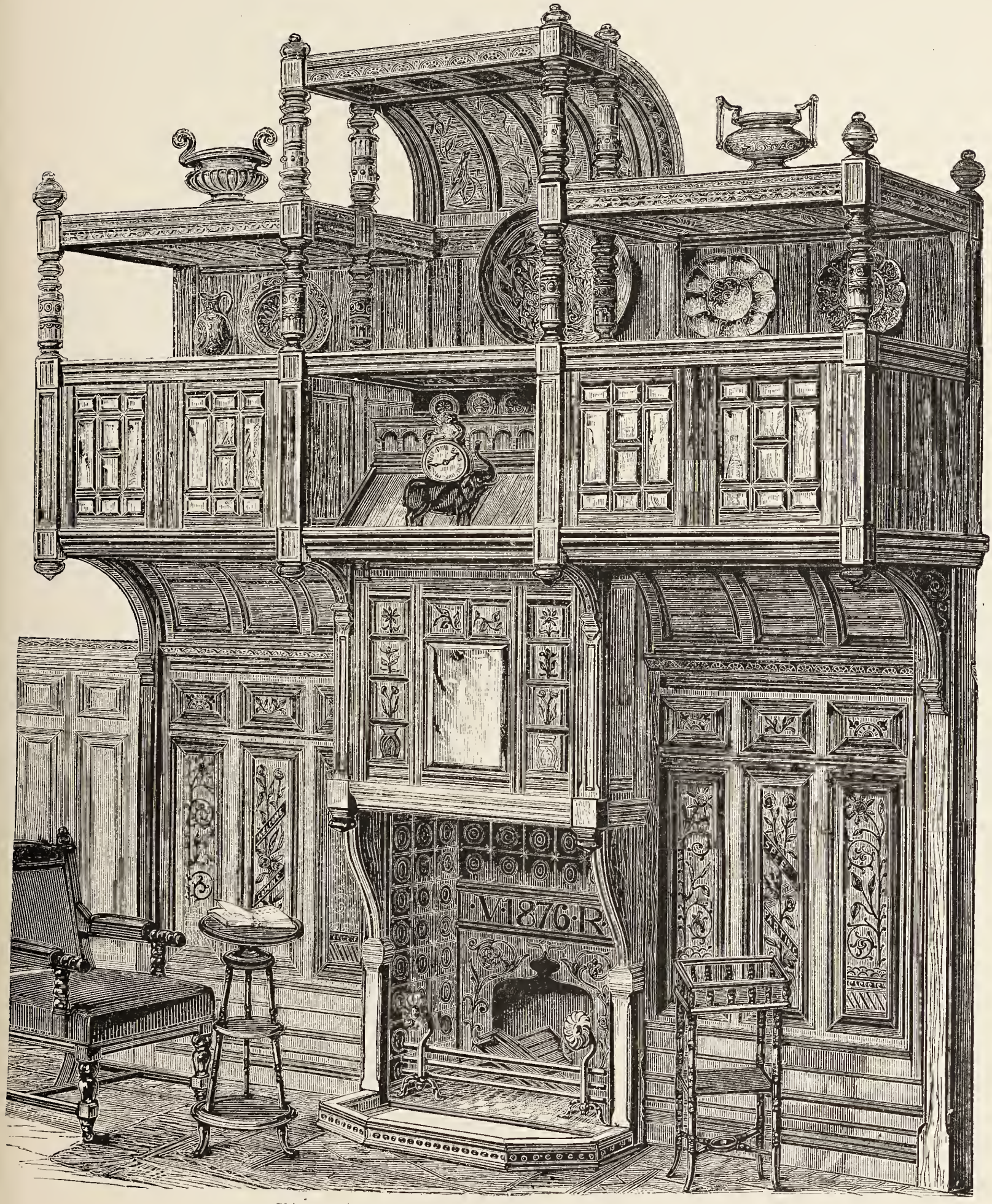
In the lower panels of the gate the four seasons are typified by the naked branch, the branch with bud and blossom, the full foliage of summer, and the fruit of autumn. All of this enrichment is executed in *repoussé*, the design having first been drawn on the metal plate, which was then placed on a soft metal table, and the pattern beaten up from the back with hammers and punches, and finished on the face with similar tools.

Another example of English metal-work and ornamental design is illustrated on page 344. The subject here is a FIRE-PLACE, with all its furniture, manufactured and exhibited by MESSRS. STEEL & GARLAND, OF LONDON. As a



Lace Collar: French Court, Women's Pavilion.

rule, we in this country know too little of ornamental open fire-places. The huge chimney chasms in our old houses, intended for burning logs, made no pretence to anything but homely comfort; and the air-tight, sheet-iron American



Chimney-piece and Wainscoting: Cooper & Holt, London.

stove—a most efficient and economic room-warmer—followed afterwards by the invention of the hot-air furnace and steam-heating apparatus, have since

come into almost universal use. But in England the pleasant traditions of the hearth-stone have been kept and made a living reality in the modern fire-place. So, when the present art-revival began, and everybody set to work studying furniture and room decoration, attention was at once directed to the fire-place as one of the principal features of the apartment. Our illustration shows what has been achieved in this direction. Here is a design which the most exacting household-art critic will find no fault with, though it suggests more solid comfort than can always be derived from the styles of furniture which he most approves of.

As an offset to the Fire-place, we may fancy the CABINET, illustrated on page 345, occupying a recess in the same room. This fine piece of work, made by COOPER & HOLT, OF LONDON, is quite in keeping with the Fire-place, and is another example of the effect of art-culture applied to the industries. Honesty of construction, avoidance of trivial and over-ornamentation, the study of utility before decoration, each and all of these are exemplified in this Cabinet. There is nothing sham or make-believe about it. With the exception of the enrichment of the panels, which are admirable specimens of the carver's art, there is nothing in the work that could not be done by any clever carpenter owning a box of tools and a lathe. It is the harmony of the design, the correctness of all the proportions, that give to the whole its pleasing effect, and here it is that education in the principles of art applied to the industries becomes apparent.

Having placed this Cabinet in the room with the Fire-place, we may place among the bric-a-brac on its shelves the specimens of FAIENCE OF GIEN ET LOIRET, illustrated on page 346. These characteristic examples of this kind of pottery are taken from the French Collective Exhibit, which was rich in modern wares and copies of ancient styles. The decoration of these pieces is of felicitous excellence, and as they may be regarded more as ornaments than works of utility, the profusion of enrichment increases the pleasure in their beauty.

And having grouped the last three illustrations together, we may with propriety add the CURTAIN, a portion of which is seen in the engraving on page 347, as part of the hangings in this ideal apartment. Those of our readers who have followed us this far will have rightly guessed, already, that this Curtain is the

work of the women at the ROYAL SCHOOL OF ART NEEDLE-WORK, IN LONDON. The design is one of the most graceful and artistic of the many which were

Plaque—Bath-Sheba at the Bath : Elkington & Co., Birmingham, England.

shown in the exhibit of this institution. The natural growth of the vine has herein been studied and conventionalized for decorative purposes in the happiest

and most agreeable manner. We can wish the happy possessor of the room which we have furnished to this extent no better fortune than that the articles still wanting to make the place habitable may be each as excellent in their way as these are.

On page 348 we illustrate a LACE COLLAR, exhibited in the collection of French manufactures in the Women's Pavilion at the Centennial. Judging from the general appearance of the design as seen in the engraving, we should say this collar was a specimen of the needle-made lace of Alençon, the only place in France, except Argentan, where point lace is made at the present time. Colbert, the celebrated minister of Louis XIV, established the Alençon industry, and induced Venetian lace-makers to make their home at his chateau in order to teach his people the stitch. But, unable to learn this, the French workmen invented a method and style of their own, which has been handed down, with but little variation, to the point d'Alençon lace-makers of the present time.

The subject of our illustration on page 349 is an oak CHIMNEY-PIECE AND WAINSCOTING, manufactured by MESSRS. COOPER & HOLT, OF LONDON, and exhibited by them in their department in the English Court at the Centennial. The fire-place proper, which is but a small part of this massive construction, is faced with an iron front, decorated with incised scroll-work. This is set in a recess, lined at the back and on the sides with colored, square tiles. Over this recess is a cupboard, standing out some distance from the wall; and above this again is a shelf with a sloping back. The object of this arrangement is to imitate an old-fashioned fire-place, hearth and projecting chimney-piece of ample proportions. The other parts of the design harmonize with this view. On either side of the hearth-walls are paneled wainscotings about four feet in height. The curved braces of the chimney-mantle rest on the wainscot-rail and support a pair of low, broad cupboards placed on either side of the central shelf. Over these cupboards are open spaces where china can be displayed, and then follows another shelf or roof supported by pillars. Above the central shelf the roof rises to double the height of the shelves on either side, with curved panels, rounding forward from the back.

The general outline of this Chimney-piece would be severely plain if it was not for the few curved lines introduced at the several points of support and at the back of the central roof; and when we look at the detail of the

work we find that it has been enriched with carving and painting. The admirable manner in which these ornamental and decorative accessories have been introduced is worthy of particular notice. With such an ample and varied surface

Brazen Salver: Egyptian Court.

to treat, a decorator might readily have fallen into the fault of over-ornamentation, but this artist was too well taught for that. The judicious choice of parts to be enriched, and the careful consideration of the kind of enrichment suitable, makes the ornamentation all the more effective. It has been well said

that the modern ornamentist might learn something of restraint, and be warned against over-ornamentation, by seeing how nature restricts her true ornaments, the flowers, to the most salient and culminating points of plants, and sprinkles them sparingly, contrasted with the foliage. Over-ornamentation, and that without a proper appreciation of the application of ornament to the various materials in which the design is intended to be wrought or executed, is perhaps the greatest fault of all ornamental work of the present time.

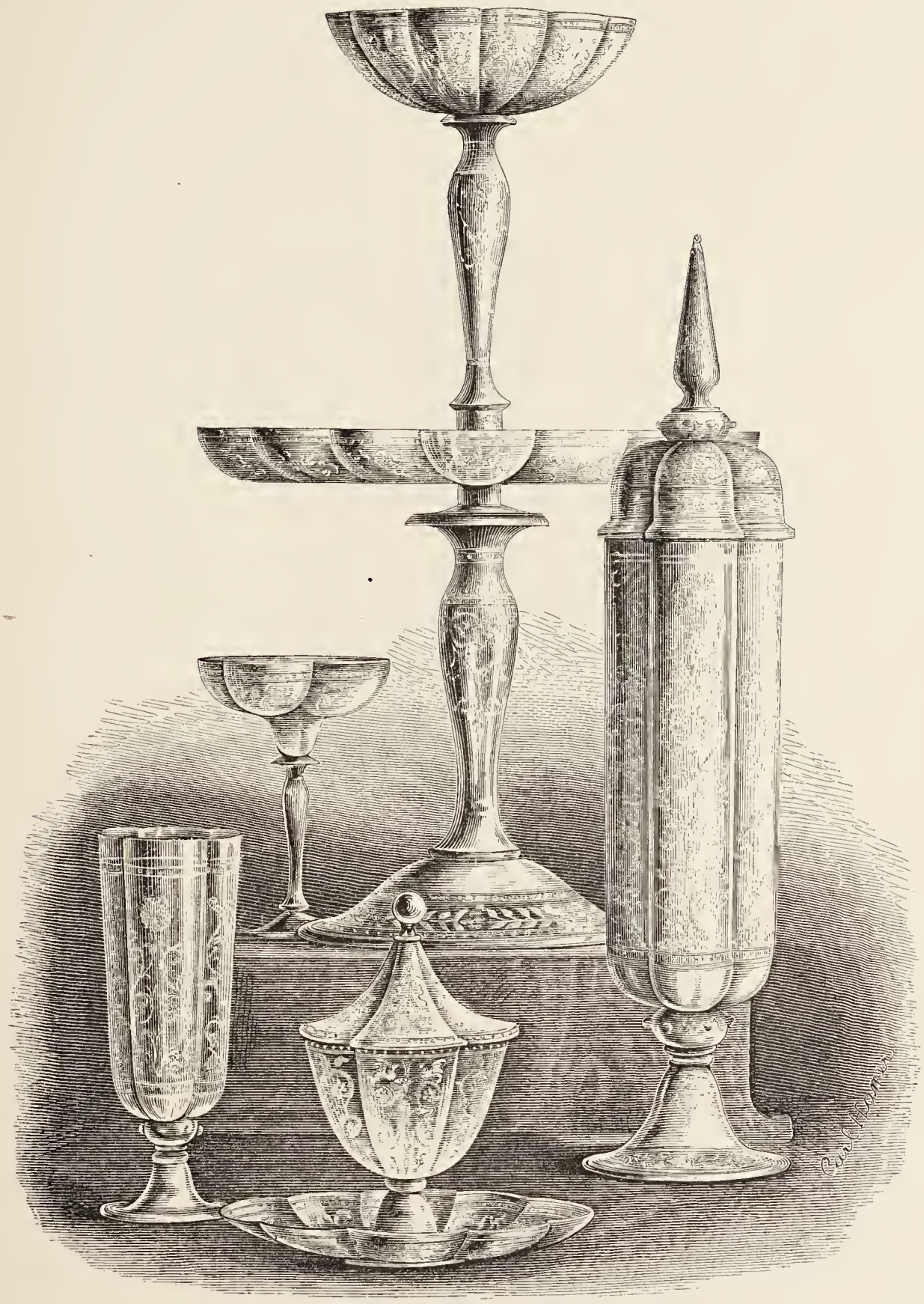
Another of the important works of high art manufactured by the MESSRS. ELKINGTON & CO., OF BIRMINGHAM, ENGLAND, expressly for our Centennial Exhibition, is illustrated on page 351. It is a PLAQUE wrought out of silver and steel by the *repoussé* process—that is to say, the whole of the work in relief is hammered up by hand from the flat surface of the metal, and is further enriched with damascened tracery in gold and silver.

The subject of the design for this exquisite work of art is Bath-Sheba at the bath. Bath-Sheba, the daughter of Eliam, the wife of Uriah the Hittite, the woman "very beautiful to look upon," whom David saw washing herself, as he walked, at eventide, upon the roof of the king's house in Jerusalem. It is the work of that eminent metal-sculptor—the same who designed the Helicon Vase, the Milton Shield and the Pompeiian Toilette, already illustrated and described in these pages—M. Morel Ladeuil. In purity of conception, harmony of detail and marvelous delicacy of manipulation, this plaque forms a worthy addition to the artist's other works. We see here the same beauty of design, fulness of elaboration and mastery of technical execution that characterizes his previous productions.

If the reader will give a careful consideration to the details of this composition, he cannot fail to observe how perfectly the Egyptian feeling has been preserved in the minutest parts. Even the rich tracery of damascened work on the rim of the plaque is purely Egyptian. The conventionalized lotus, the winged globe, the frame to the central group are well known. Coming to the episode represented, we see it executed in a manner sculpturesque as opposed to chromatic, and treated with classic purity and simplicity. The composition of this design is chaste and harmonious to a degree unsurpassed in a work of this kind.

And when we consider the technical execution we find the same excellen-

cies in every part. In the figures of Bath-Sheba and the slave, the skin-texture has been wonderfully well rendered. Not a flaw can be discovered in the



Group of Bohemian Glass: J. & L. Lobmeyr, Vienna.

damascening. In short, the workmanship is a perfect specimen of the highest class of artistic labor in the manipulation of the precious metals.

The BRAZEN SALVER, illustrated on page 353, was exhibited in the Egyptian Court at the Centennial, as an example of the excellence of the modern artistic metal-work of the Egyptians. The intricacies of the design with which the salver is enriched appears to have been made conspicuous by the use of niello, a kind of black enamel with which the engraving is covered. The enamel sinks into the incisions made by the graver, and the whole surface is then rubbed down smooth and polished. The attempt to follow the lines of the pattern through all their labyrinthine windings is bewildering, yet it will be seen that the design consists of units of ornament distributed and interwoven over the surface with geometrical accuracy. Indeed, this combination of geometrical forms with conventionalized flowers and leaves and tendrils is exceedingly felicitous and effective. In all oriental surface decoration where a regular redistribution of patterns is affected, we will find a symmetrical arrangement in which a figure, often extremely simple in itself, is so agreeably interwoven with geometric forms as to give a rich and satisfactory effect.

Krug Jug: Count Thun, Austrian Court.

The group of BOHEMIAN GLASS, manufactured by J. & L. LOBMEYR, OF VIENNA, which we illustrate on page 355, is an excellent example of this beautiful ware. The MESSRS. LOBMEYR make a specialty of the manufacture of all kinds of Bohemian glass, both ancient and modern, and they are particularly successful in reproducing the ancient forms and peculiarities of workmanship that made the ware famous as far back as the thirteenth century. Unlike Venice, where glass-making in all its branches was an established industry before its introduction into Bohemia, the latter state still maintains its reputation for producing fine and artistic glass-ware, especially the ornamental varieties.

Our illustration represents a number of articles in engraved glass, a style of enrichment in which the ancient Bohemian glass workmen were so skilled as to make the fame of their engraved ware world-wide. The examples before us show the excellence of the modern workmanship; the grace, purity and lightness of the objects, and the elegance of the patterns with which they are enriched.

The usual method of engraving on glass is by the use of a small copper disc, set in a foot-lathe. This disc being set in motion is made to revolve with great rapidity by the foot of the workman, who at the same time holds the object to be engraved against the edge of the disc, while he is guided in his work by the lines of the pattern to be worked, which has been first lightly traced upon the surface of the glass. Apropos to this subject of glass-engraving, mention may be made here of a very ingenious American invention by which glass is cut or engraved by means of a jet of sharp sand being blown through a small orifice against the surface of the glass. By this discovery, which is of comparatively recent date, not only glass, but the surface of crystals, of quartz, and even of diamonds, can be cut speedily and at a trifling cost. We are not informed, however, whether this invention, known as the Sand-blast, is adapted to the production of very fine and delicate work.

Crystal Pitcher: J. Green & Nephew, London.

The KRUG JUG, engraved on page 356, was one of the *chefs d'œuvre* of the exhibit of COUNT THUN, OF BOHEMIA. From his factory at Klosterie, his Excellency sent a varied collection containing specimens of decorated dinner-services, room-furniture, jardinieres, and miscellaneous articles of use. The ornamental objects were chiefly made of a white bisquit resembling parian, though the material was sometimes colored with a uniform tint of light blue or pink or gray. The example illustrated by us has a ground of the latter color, the relief-work being painted in bright and strongly-contrasted hues. The whole

has afterwards been glazed in the kiln. On the front face of the body of the Krug is a shield bearing a coat-of-arms and crest. This is the most conspicuous feature of the ornamentation. The zone about the neck of the jug is decorated with arabesques of a light and graceful pattern. Beneath this is a band decorated with a scroll-work of leaves and flowers. The central zone contains grotesques, animals with griffins' heads and bodies coiling off into plant-shapes. At the mouth of the vessel, and also at the base of the handle, masks executed in relief are placed as ornaments. The one at the vessel's mouth is a female face of considerable beauty; the other is the face of a satyr. In shape

Stained Glass Window: W. H. Constable, England.

and in the general style of the ornamentation this Krug bears a close resemblance to antique models.

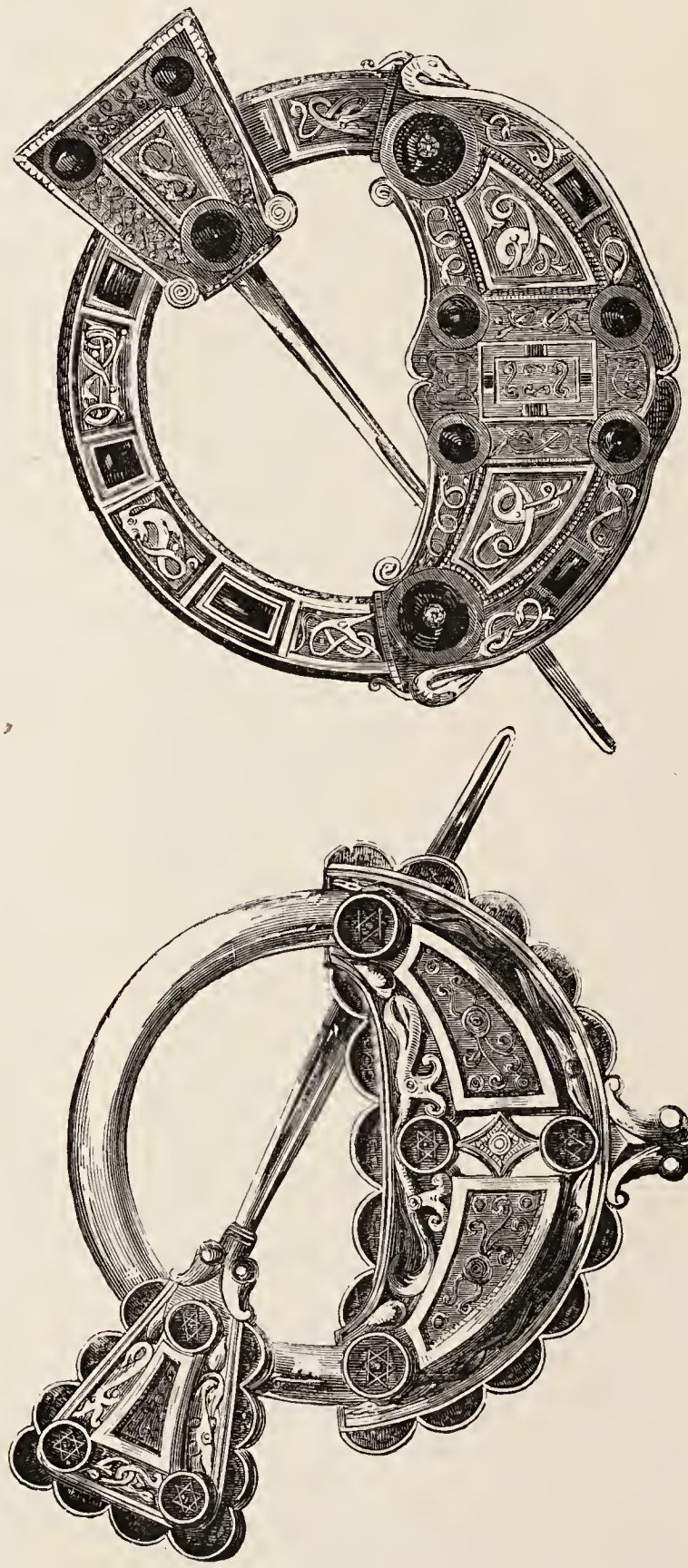
The proficiency of English workmen in ornamental glass-making is illustrated by our engraving on page 357. This represents a CRYSTAL PITCHER, manufactured by MESSRS. J. GREEN & NEPHEW, OF LONDON, engraved and otherwise decorated in a manner befitting an object intended more for ornament than use. The handle of the vessel appears to be that peculiar arrangement of colored glasses known as filigree-work. The neck and upper portion are enameled and gilded, and a small panel in the narrowest part of the neck contains a group of

horsemen. The lower portion of the vessel is of pure crystal, and on this clear, transparent surface the spirited group of St. George and the Dragon is engraved in a highly artistic manner. The group is surrounded by a wreath of oak-leaves, and a laurel wreath encircles the base of the vessel. The workmanship displayed in the manufacture of this pitcher, and the technical excellence with which the ornamental designs have been rendered, are in every way creditable and satisfactory. For some time England, encouraged by the success of her competition with Europe in the production of artistic pottery, has been devoting attention to the sister art of ornamental glass-making, and we have in the example before us satisfactory evidence of the progress made in this direction.

Stained Glass Window: W. H. Constable, England.

On pages 358 and 359 we illustrate examples of GLASS-PAINTING, manufactured by W. H. CONSTABLE, OF LONDON. They are intended for use in church-windows, and therefore the subjects treated are of a sacred character, being episodes in the life of our Lord. While each design forms a piece perfect in itself, the details and color-treatment of the several parts are the same in both, and make them suitable for use as a pair. In the first window we have the story of the Box of Precious Ointment pictorially rendered, and beneath it a rosette and angel, with the legend de-

scriptive of the story, "She hath chosen that good part." In the second window our Lord is represented delivering the keys unto Peter, and below is the text, "Jesus saith unto him: Feed my sheep." The purely decorative enrichment in the two windows is Gothic in its character. This style of ornamentation has almost become traditional, owing to the intimate connection between the art of glass-painting and the progress of Gothic architecture. But in these modern examples we have a pictorial rendering of a subject altogether unknown to ancient examples of the art. Symbolism was primarily the object of the artist, whose works are characterized by a monumental simplicity. The new school of pictorial art in connection with glass-painting is principally practised at Munich, where many superb works have been constructed. Both schools have their advocates, and as there is much to be said in favor of both, we shall not enter into a discussion of the merits of either in this place. The reader who is interested in the subject will find the literature of glass-painting very voluminous and full. It is one of the arts that from having been regarded as lost has been revived and brought to a greater state of perfection, as far as technique is concerned, than ever before.



Cairngorm Brooches; English Court.

Carved Mirror-Frame: Italian Court.

A short description of the process employed in making a stained glass window may interest those who do not desire to investigate the subject further.

From the colored study of the design a full-sized cartoon is drawn upon paper, with the addition of the lines in which the several pieces of glass are to be cut. Glass of the requisite colors having been prepared by a process of

Bohemian Glass-ware: Austrian Court.

staining or melting the coloring matter into the material, separate pieces are laid, one at a time, on the cartoon, and cut with a diamond to the lines seen through the surface. The several pieces of plain colored glass are then put together on the cartoon, and the design traced upon them with a vitrifiable substance that becomes dark when heated in the oven. The shadows are painted in the same way, and then all the pieces are joined together by strips of grooved lead fitted around the edges of each piece. In some designs the glass is cut into geometric figures independent of the design, but the manner most

generally preferred is that above described, where the lead-joints and the outlines of the design harmonize as much as possible.

On page 360 we engrave a couple of CAIRNGORM BROOCHES, from a collection of objects of the same character exhibited in the English Court. These unique and pleasing ornaments are made from Scotch pebbles, carved and chased in the manner seen in our illustration, and mounted in silver. They are made in a variety of shapes, but the style and the character of the ornamentation plainly suggests their origin.

Lace Shawl: French Collective Exhibit.

The wood-carving of Italy, famous in olden times as among the most beautiful examples of the art, is again attracting the attention of every one interested in the subject by the earnest efforts on the part of several Italian artists of note to revive the taste of the people in this regard, and to stimulate native talent to bring back to their country its ancient renown. The Italian Court at the Centennial Exhibition contained numerous examples of modern wood-carving, some in imitation of the style of the Renaissance, others fashioned after more ancient models, and more exemplifying the originality of the artist

untrammeled by the methods of any particular school. Our readers are already familiar with several of the most noteworthy of these works, which have been illustrated and described at length in these pages, from which an excellent idea of the progress already made in the direction aimed at can be had. Of these the greater number have been examples of artistic carving of scroll-work, a

Silver Plaque: Elkington & Co., Birmingham, England.

graceful interweaving of vines, conventionalized figures obtained from the study of the growth of plants, grotesque and natural rendering of birds and animals, and in one instance, a minutely exact copy of a famous ruin. Now, as an addition to this group, we engrave on page 361 a MIRROR-FRAME, in which the artist has essayed the highest range of sculpture, the study of the human figure.

The Mirror-Frame consists of two parts—the ground-work for the orna-

mentation and the ornamentation itself. The ground-work or back consists of an oval of plain, dark wood, about three feet in its longest diameter, surrounded on the outer and inner edges with a delicately carved raised moulding of some light-colored wood. Poised upon the upper part of this moulding, and clambering up the sides of the frame, is a string of little winged cupids.

Silver Plaque: Elkington & Co., Birmingham, England.

With clasped hands and dancing feet, these little fellows disport themselves, balancing on perilous places and in postures such as only winged cupids can venture. The garland of ribbon with which each little figure is provided floats about him in his play, giving emphasis to the airy lightness of the movements of the party. There are nine of these figures, yet it would be difficult to choose between them in point of merit; nor, where the general effect of the whole group is so harmonious, so graceful and so charmingly balanced, would

it be worth while to institute a comparison between its several members. At the base of the frame is a female bust, the breast and shoulders draped, the head upraised and crowned with a garland of flowers. Her hair, unconfined, sweeps back from her forehead in wavy masses, as if blown by the wind, and the upturned face wears an expression of pleased attention, as if listening to the happy voices of the little beings around her. Two of these have imprisoned her in their garlands, and with feet resting upon her shoulders, reach up and clasp the hands of their mates above them. In this way the connection of all the parts of the design is established, rounding and perfecting the whole. The bold, free carving of the figures in this group, and the additional relief given them against the dark wood of the background, makes the design singularly effective, and the whole work a most agreeable ornament.

In the three specimens of BOHEMIAN GLASS-WARE engraved on page 362, we have examples of several of the various kinds of decoration with which glass can be enriched. We have here, chasing or engraving, cutting, enameling in color, gilding, and the process of cutting through a colored enamel surface to the crystal beneath. In the middle tazza of the group, the centre of the piece is made of the clearest crystal, while the rim is of enameled red glass. On the interior edge is a cord of twisted glass of the same color, enriched with gilding. An engraved pattern, representing swans, lilies and water-rushes, grouped between shell medallions, decorates the rim. The depth and shallowness of the cutting give light and shade to the design, and roundness to the figures. The dish on the left hand of the trio is a beautiful piece of work, admirably cut and decorated in a highly artistic manner. The third piece is more elaborately enriched than the others, and would make a charming ornament suspended from the wall of an apartment, or placed among the bric-a-brac on the shelves of a cabinet. The well-known group which has been engraved as the central ornament of the dish is framed by a pattern of vine-leaves and berries, separated by scrolls and grotesque masks. A rope border surrounds the whole. In each of these examples the cutting has been done from beneath, so that the upper surface is smooth and polished to the touch.

The French Collective Exhibit of LACE furnishes us with the subject of our illustration on page 363. This delicate piece of workmanship, one of the most beautiful of the many examples of French skill in this branch of manufacture,

though so elaborately wrought, can be crushed together in the hand and drawn through the compass of a ring. The design consists of the central pattern, a graceful arrangement of ferns and flowers and grasses in studied confusion, and a border of scrolls sweeping in full, broad curves around the pattern in the centre, and at the lower angle of the shawl falling the one over the other in imitation of separate folds of lace. There is a suggestion of oriental richness in the arrangement of these curves, which is appropriate and extremely attractive in a design of this kind.

Carpet: Spanish Court.

From the almost inexhaustibly rich collection of ornamental metal-work exhibited by the MESSRS. ELKINGTON, OF BIRMINGHAM, ENGLAND, we select the pair of SILVER PLAQUES illustrated on pages 364 and 365. Like all the other examples of ornamental work in the precious metals by this firm which we have placed before our readers in these pages, the principal part of the ornamentation is executed by the *repoussé* or hammering-up process, although it seems almost impossible to believe that anything so fine and delicate as the lines of the groups of figures in these plaques have been produced from a flat metal surface by repeated blows with the hammer.

In the Plaque first illustrated we have a group of female figures, floating,

like storm-wraiths, out over a desolate shore to a wind-tossed sea. It may be that they are powers of the air, or the Graces, conveying Venus through the clouds; but whatever the subject of the design is, the figures are charmingly grouped, forming a most graceful ensemble. About the margin is wrought, in the same *repoussé* process, a scroll pattern of leaves and flowers, with here and there a cupid, a bird, a beast of the forest, or a Psyche.

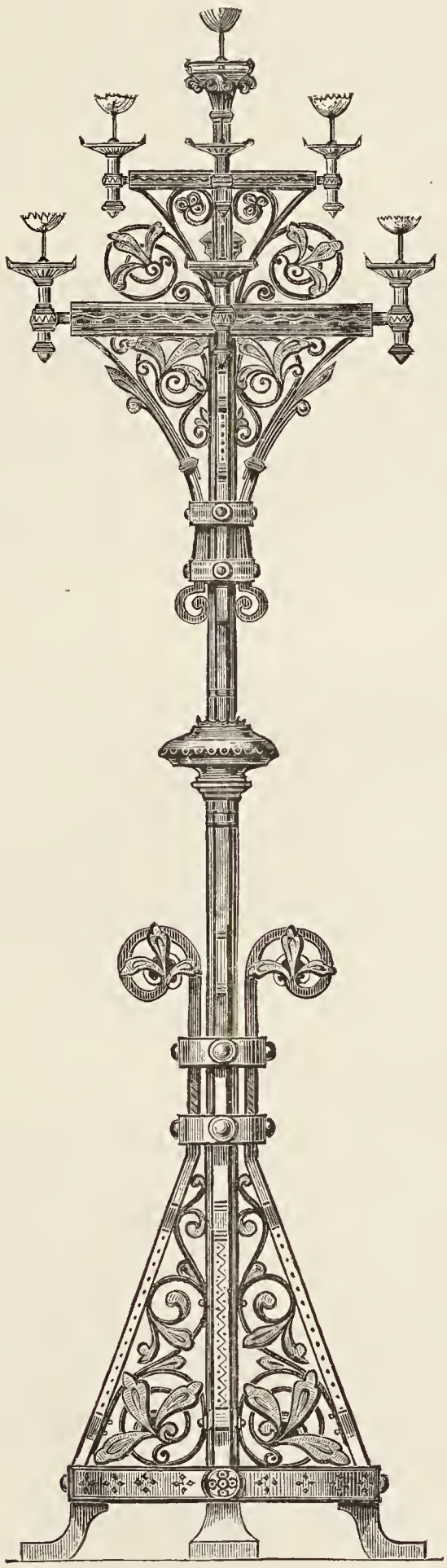
In the second Plaque the artist has depicted a sylvan scene—a group of satyrs, young and old, on a glade of the forest, playing upon pipes and cymbals,

Communion Vessels: Poussielgue-Rusand, Paris.

and a wood-nymph dancing to the music. The same excellent skill displayed in the composition of the former design is seen in this piece. It is a scene of joyous revelry and free abandonment to the pleasure of the moment. As a setting to this scene, the border is enriched with a satyric mask and a leafy scroll of branches, in which infant satyrs swing and hide and chase one another.

The oriental richness of design and the arabesque forms which we associate with Spanish decoration are entirely absent from the pattern of the Spanish Carpet illustrated on page 367. The bouquet of flowers held together by a ribbon, the latter floating off and interwoven with garlands of roses, which form frames for a repetition of the same design over the surface of the fabric,

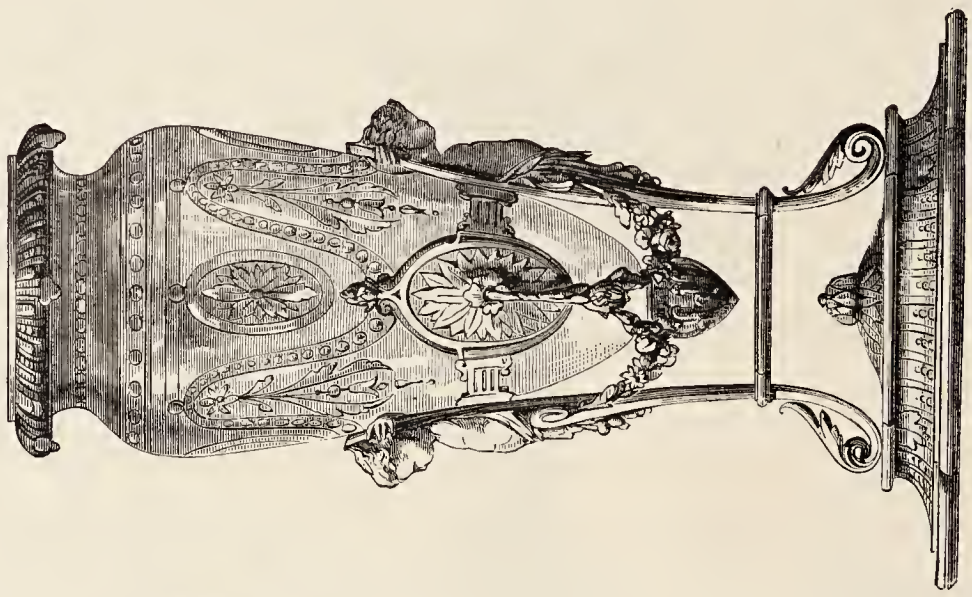
suggest a preference for and study of French fashions rather than an appreciation of the admirable patterns for decorating such material as this, to be found in the Moorish arabesques and scroll-work. But by examining the flowers and the way they are represented, we can detect a difference in the decorative treatment from that of similar designs of French manufacture. In the first place, the flowers copied mostly are different from those seen in the carpets of other countries; but secondly—and this makes a distinctive difference in style—these flowers, though copied with sufficient accuracy to be recognized, are not imitated as exactly as may be, but treated in broad masses of color, with strong shadows and well-defined outlines. There is no minute veining or gradations of tint—in other words, that attempt at pictorial effect which makes some carpets of France, and indeed of other countries as well, almost as valuable as a chromo, in an artistic way. In the important particular of having the border, which forms a frame to the principal designs, run gracefully and unobtrusively in and about the central patterns, harmonizing and connecting the whole design, the designer of this carpet has shown skill and excellent taste.



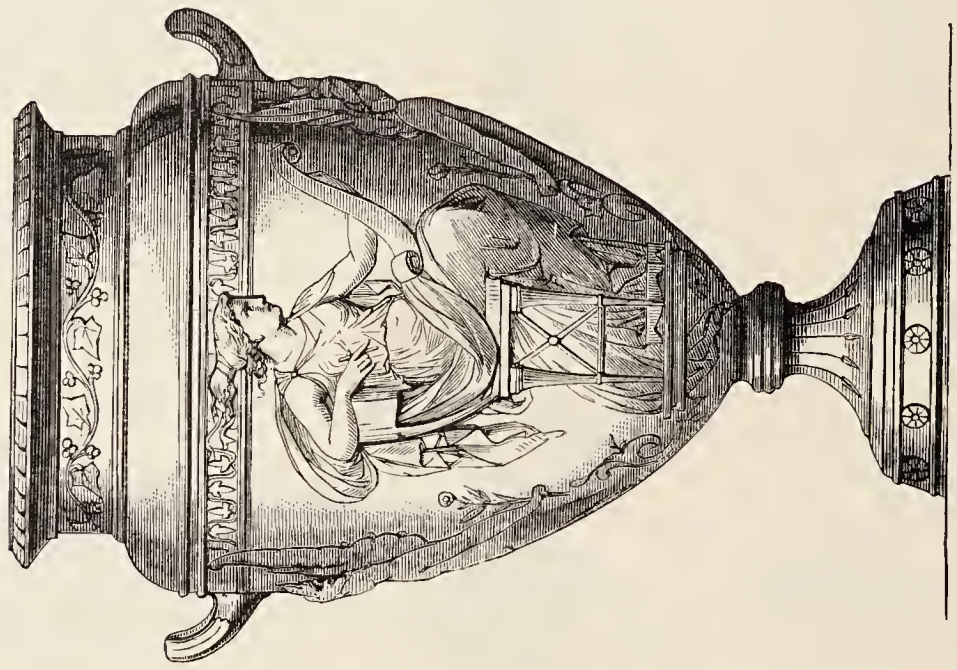
Candelabra: Hart & Son, London.

Although the French exhibit of fine metal-work, especially bronze, was disappointing in that it was neither so large nor so rich in works of a high class of art as the reputation of the nation and the importance of the industry would lead one to expect, there were several displays made by individual manufacturers that contained

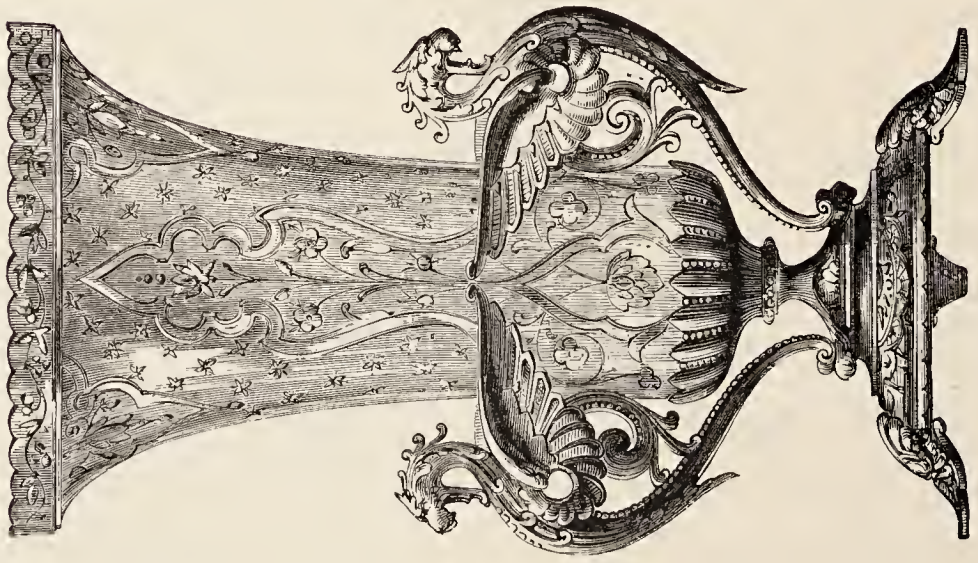
much that was choice and beautiful. Such, for example, was the collection of fine metal-work exhibited by M. POUSSIELGUE-RUSAND, OF PARIS, from which we



Flower Stand.



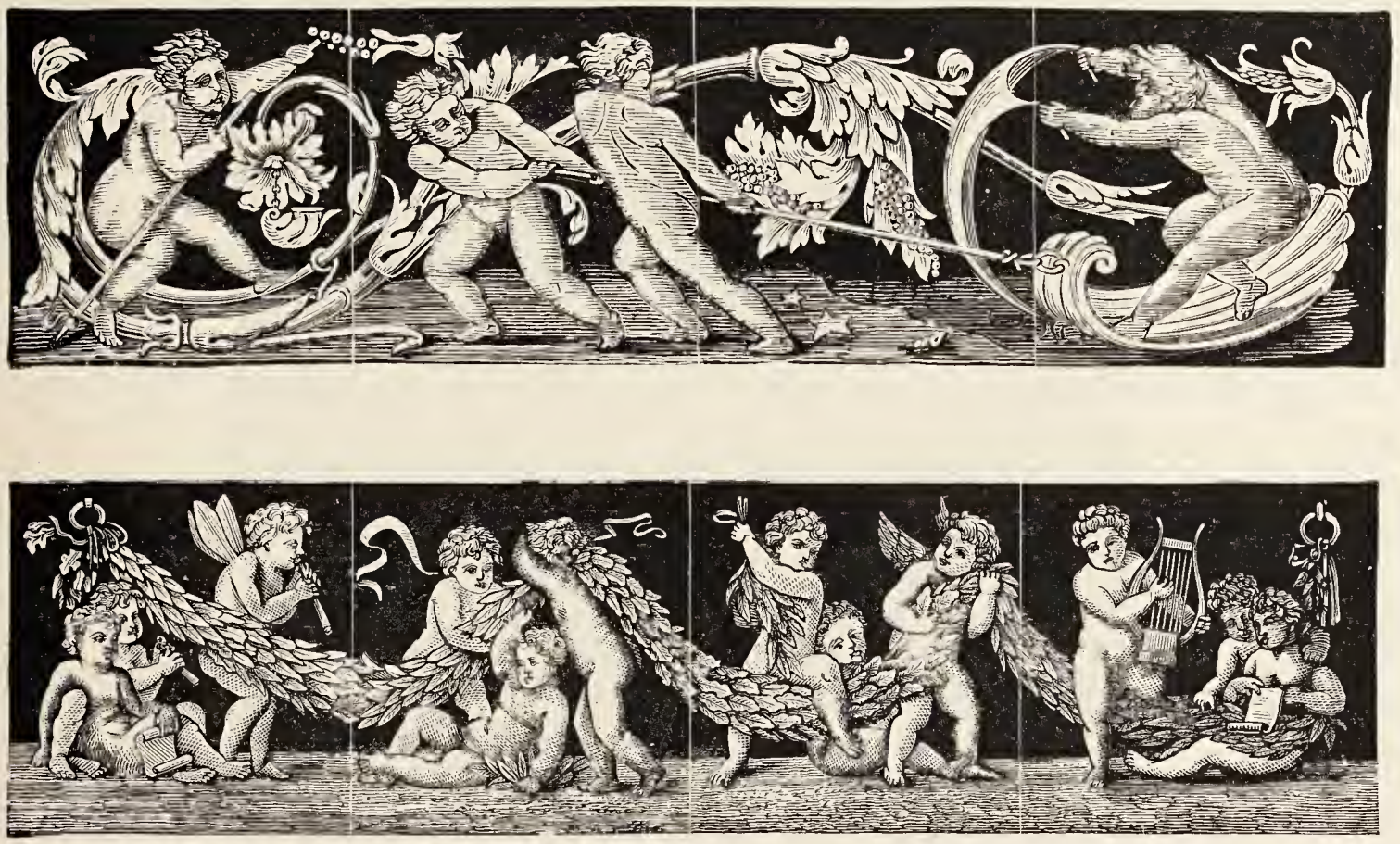
The Music and Poetry Vase.
Glass and Metal Work: Elkington & Co., Birmingham.



Flower Stand.

have selected the COMMUNION VESSELS, illustrated on page 368, as examples. These vessels are made of fire-gilt metal, chased, enameled and enriched with

jewels, so that they are very rich and brilliant in appearance. The manufacture of ecclesiastical vessels and church metal-work of various kinds is a specialty with M. POUSSIELGUE-RUSAND, and there were reproductions of several antique pieces in his collection. The Chalice, seen on the left of the group in our



Ornamental Tiles: Brown, Westhead, Moore & Co., Staffordshire, England.

engraving, though possibly not a reproduction, resembles similar vessels used in the fourteenth century. The broad plain bowl, the cruciform knob, enriched with jewels, the enameled stem and foot with medallion figures in relief, all are characteristic of that time. The other Chalice, much more elaborately enriched, is quite modern in its decoration, though the shape is antique. The enrich-

ment of the bowl is never seen in ancient chalices. The flagon has an old-time severity of outline, with modern styles of ornamentation. But it is noteworthy that ecclesiastical vessels, as a rule, have yielded less to the universal desire for change and novelty in style than any other kind of metal-work. Traditional forms have been handed down to us and copied extensively,

Screen : Royal School of Art Needle-work.

and the most marked yielding to fashion has been the excessive enrichments of the vessels with enamels and precious stones. But the present art-revival which is perceptible throughout Europe is having its effect here as elsewhere in a tendency to go back again to the simplicity and severity of mediæval models.

On page 369 we engrave an illustration of a CANDELABRA, made entirely of wrought metal, which was exhibited by MESSRS. HART & SON, OF LONDON.

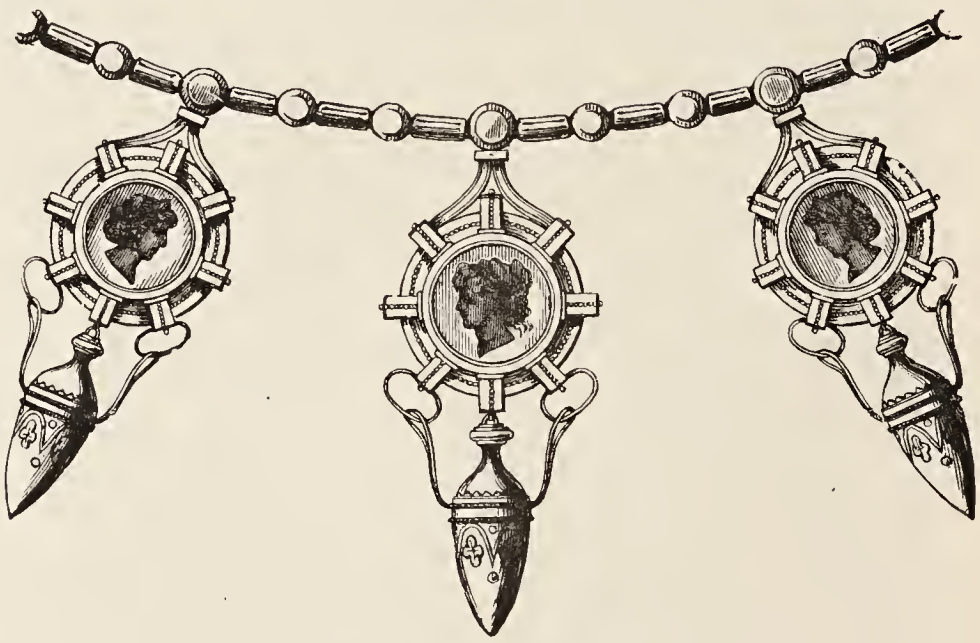
Lace Curtain: Maison Blanc, Paris.

The design for this fine piece of work is very light and graceful and excellent in outline. The stem is supported by four rods sloping outward to a broad ring at the base, to which they are attached. The upper ends of these rods are curved around like tendrils, terminating in three leaves. The same leaf-pattern is introduced into the space between the rods and stem, serving the double purpose of an ornamental finish and a brace to the several parts. The upper part of the Candelabra is more highly ornamented than the lower, but a variation of the same leaf-pattern furnishes the enrichment. There are two rings, of four lights each, the smaller above the larger, each supported by brackets fastened to the stem, which ends in a single light raised a proportionate distance above the others.

The central figure of the group illustrated on page 370 will be recognized by many of our readers as representing the MUSIC AND POETRY VASE, exhibited by the MESSRS. ELKINGTON & CO., OF BIRMINGHAM, ENGLAND. The vase is of silver, decorated

with *repoussé*-work, executed in such low relief as not to interfere with the classic outline of the vase itself. The figure on this side represents

the muse of Poetry, a charmingly graceful figure, admirably executed. On the opposite side of the vase is the muse of Music, conceived in the same



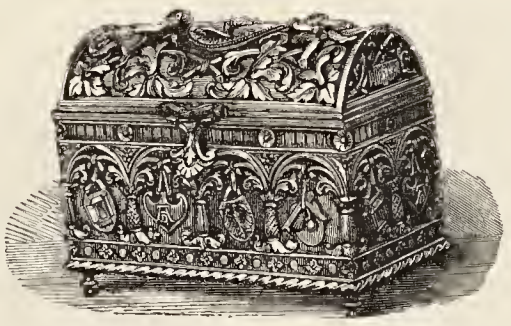
Necklaces, Cameos and Drops: M. Gerardine, Milan.

Brooches and Ear-ring: M. Krumbügl, St. Petersburg.

classic style. Between these figures, under the handles of the vase, are winged geni, holding laurel and palm branches in their hands. Around the upper

portion of the bowl and also around the neck of the vase are narrow bands decorated with vine-leaves and acorns. The workmanship in this fine work is quite equal to the beauty and elegance of the design.

On either side of this vase are crystal and bronze FLOWER STANDS, from the Austrian Court. Both are admirable works, remarkable for the beautiful engraved decoration on the glass. The stands, also, are worthy of note for the excellence of their design. The spirited drawing of the dragons in the one on the right of the group is particularly fine.



Jewel Casket: Austrian Court.

The numerous uses to which ORNAMENTAL TILES can be put has stimulated their manufacture by the leading English potteries to a wonderful degree. Almost every conceivable design is executed in

Jewelry: Russian Court.

these little squares, from an elaborate subject treated pictorially to a simple geometric pattern. Many of these tiles are so skillfully and artistically painted as to be veritable works of art, and as such we may class the examples illustrated by us on page 371, from the exhibit of MESSRS. BROWN, WESTHEAD & MOORE, OF STAFFORDSHIRE, ENGLAND.

The first and second series of tiles shown make each a connected picture, but the third series, though complete as a set of four, symbolizing the elements,

can be arranged in any order or used separately for decorative purposes. A single choice tile, framed and hung upon the wall, makes a capital ornament to a room, and a series, arranged as a frieze in a cabinet or other piece of furniture, is always effective. For chimney decoration tiles have always been considered the correct thing, and latterly, since it has become the fashion to have them decorated by experienced artists, they are in demand for jar-

Furniture Silk: Russian Court.

dinieres, many kinds of fancy boxes, and as plaques for vessels in use on the table.

On page 372 we engrave one of the most admired specimens in the exhibit of the ROYAL SCHOOL OF ART NEEDLE-WORK, which was sent from London and arranged in a pavilion erected for the purpose in the English Court in the Main Building. Unfortunately the pavilion was not large enough to display all the beautiful things in the collection, and a portion of them had to be placed on separate view in the building known as the Women's Pavilion, while others were not even unpacked.

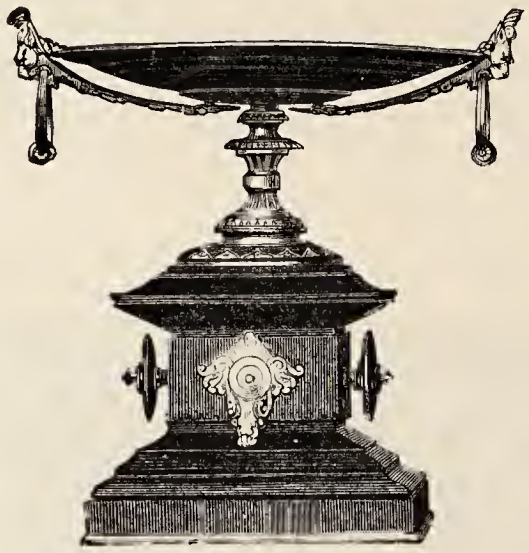
The SCREEN which we illustrate on page 372 was one of several designed and embroidered by Miss Gremmell, one of the pupils of the School. The ground on which the design is embroidered is Musgrave satin, against which the colors in the work are excellently contrasted. The amount of labor expended in this design must have been very great, as in parts of it—for example, in the plumage of the birds—the shading and gradations of color

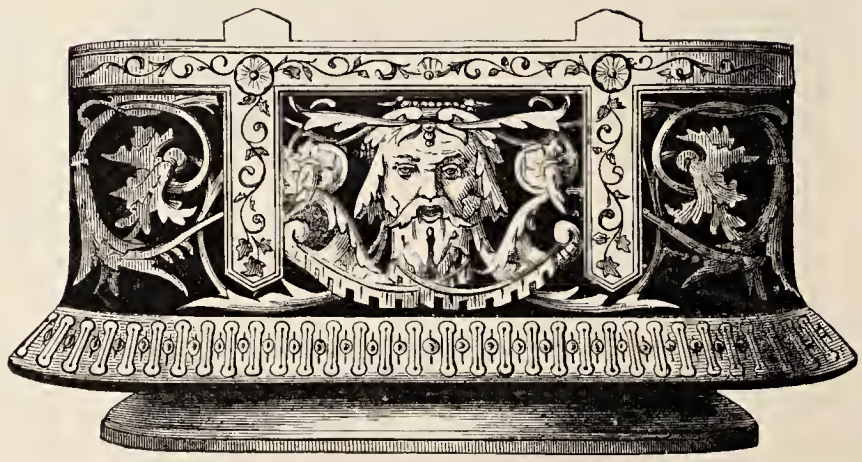
Carpets: French Court.

require minute stitches. The screen is mounted in three leaves, and framed in ebony ornamented with carved panels. It is an admirable example of the progress made by the institution, in the brief time of its existence, in instructing women in the art of design and artistic needle-work.

It has been well said that the characteristics of lightness and filminess of the texture should never be forgotten in the ornamentation of lace, which should

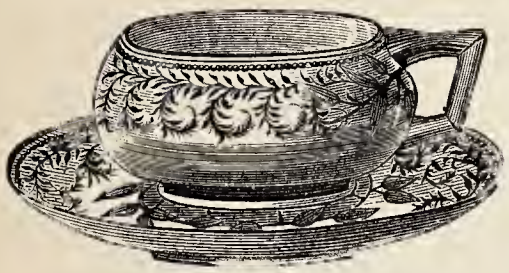
be essentially light, elegant and flowing; all straight lines should be avoided, not only from the necessities of the manufacture, but because graceful forms

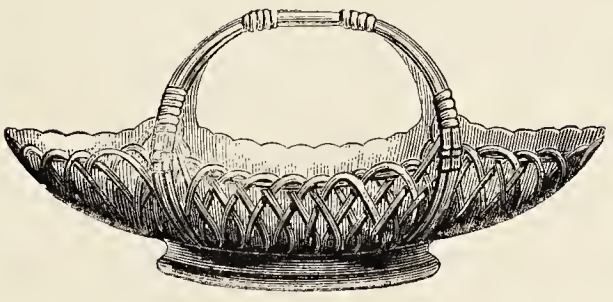


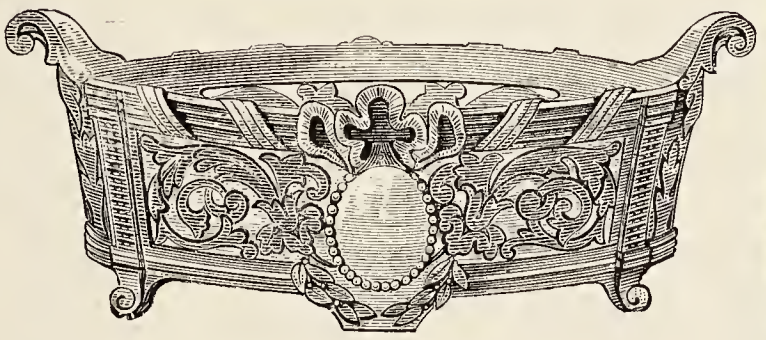


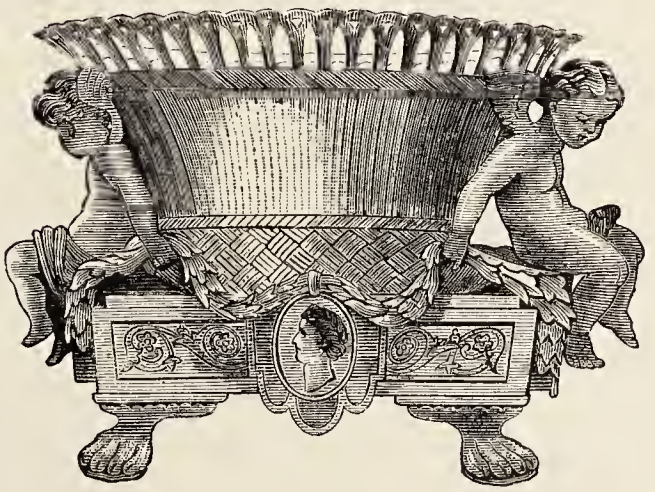
Card-Receivers, Candlestick and two Jardinieres: M. Jules Houry, Paris.

are required to pervade its ornamentation. In the appreciation of this law and in applying it to their designs, the French are particularly happy. Beauty of









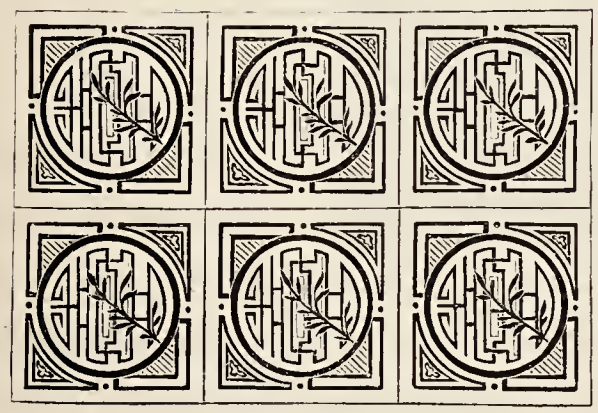
Group of China: Brown, Westhead, Moore & Co., Staffordshire.

outline and delicacy of design, with graceful curves blending into the more elaborate figures, makes their work elegant and attractive.

On page 373 we illustrate a LACE CURTAIN, a superb example of French lace manufacture exhibited by the MAISON BLANC, OF PARIS. Here the beauty of the curved lines, so disposed as to give extreme richness of outline with lightness, is seen to fine advantage. The balance of the design has been well sustained, and a sumptuous degree of ornament is obtained without any effect of crowding. But it must always be remembered that a curtain ornamented in this manner, with a design which must be viewed in its entirety to be duly appreciated, should not be hung in folds. The designer has made his pattern for a broad flat surface, and the curtain should hang in that way.

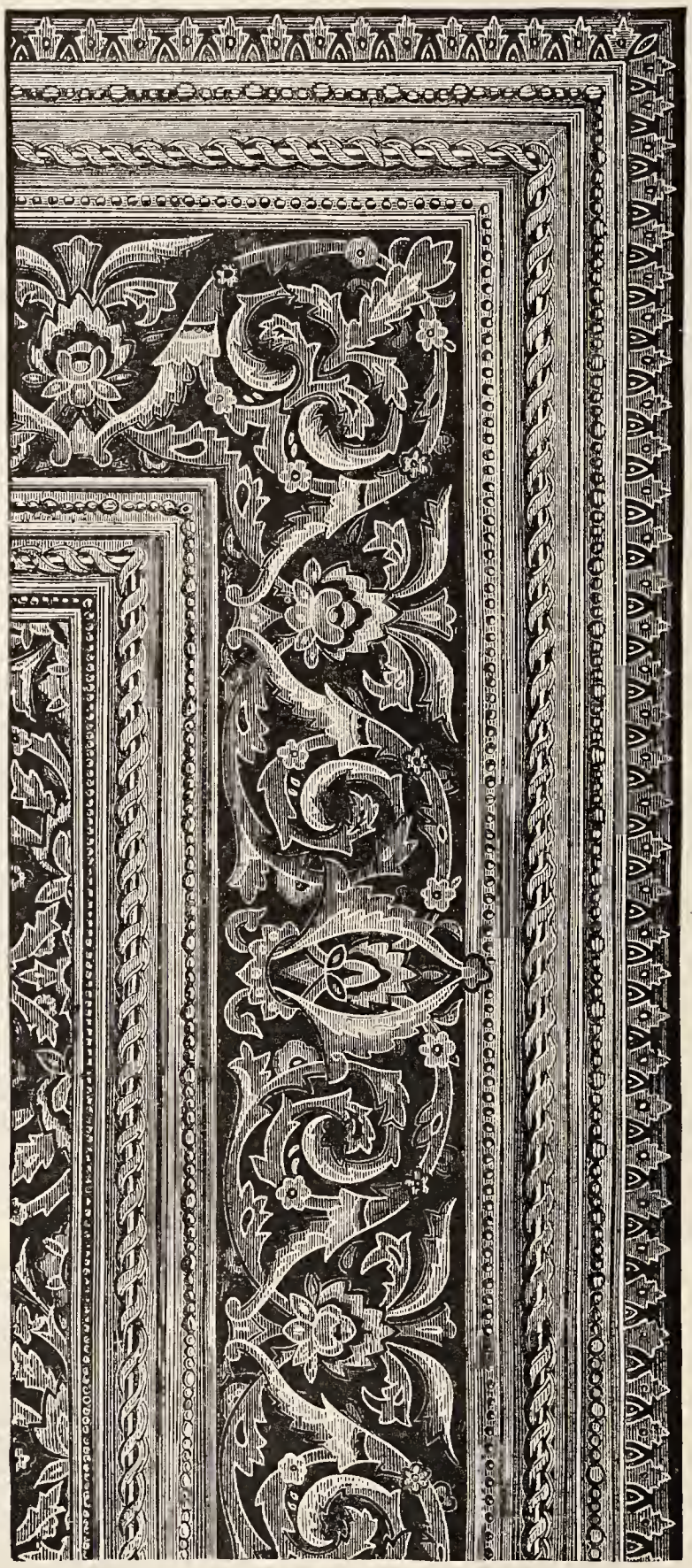
The group of jewelry on page 374 includes two examples of NECKLACES exhibited by M. GERARDINE, OF MILAN, and a trio of BROOCHES and EAR-RINGS from the establishment of M. KRUMBÜGL, OF ST. PETERSBURG. The Milanese jewelry is ornamented with cameos and engraved gems artistically mounted and hung at intervals on the chain. No more beautiful ornament can be desired by a person of refined and æsthetic taste than a finely engraved gem. Among the ancients, jewels of this kind were held in the highest esteem, and the vast abundance in which they are found, even at this late day, shows how universally they were esteemed and worn by the Greeks and Romans. Nor can we at the present day, with all our modern appliances and discoveries, approach the ancient engravers in the beauty and perfectness and finish of their gem-engraving, and their work probably will be always studied with admiration and wonder. There is perhaps no study more fascinating or capable of yielding more pleasure to the amateur than the study of the glyptic art. By this study, Flaxman, Wedgwood and Stodhard in the last century opened a new field to English ornamentists, and brought one of the industrial arts to a perfectness that has not been excelled in these times.

The Russian jewelry, here illustrated, is noteworthy for the splendor of its jewels, the rich red of its gold, and the brilliant contrasts of color in its enamels. There is always, also, something noteworthy in the design of the objects themselves, an oriental richness of ornamentation, as in the middle brooch of this group, or a grotesque turn, as in the double cocks in the brooch on the left hand.



Tiles and China Plates and Vase: Brown, Westhead, Moore & Co., Staffordshire.

On page 375 are several other examples of Russian jewelry, chiefly BRACELETS, which are admirable examples of workmanship of the highest artistic and technical excellence. The finely conventionalized vine and flower pattern with which one of these bracelets is ornamented in colored enamels is a model in its way. Here the natural lines of the growth of the plant have been conventionalized so as to give us a floral form as artistic and beautiful as a mere imitation of the plant itself would have been inartistic and mean. Attention also may be directed to the two patterns in scroll-work and arabesques, which are singularly agreeable, giving evidence of a skill in ornamental designing of a very high order of excellence.



Carpet: Tomkinson & Adam, Kidderminster, England.

In this group we have illustrated a JEWEL CASKET, wrought in silver, which was exhibited in the Austrian Court. The pattern of flowers and leaves interwoven into as intricate a network as nature herself weaves, is executed in high relief and with much elaboration.

The examples of FURNITURE SILKS on page 376 are from the collection of textiles displayed in the Russian Court at the Centennial. The pattern with which the fabric is enriched resembles the styles made popular in

France a number of years ago, and which have rarely been equaled in beauty of detail and richness of effect. There is, however, in these designs, less elaboration and delicacy of outline than in the French work, while the colors are more strongly contrasted and more broadly massed.

The French taste in the decoration of certain textiles is well shown in our illustration, on page 377, of two specimens of CARPET, which were on view in the French Court. They are remarkable examples of art applied to the

Iron Grate: Steel & Garland, Sheffield.

industry, and in this particular style of decoration they are about as perfect in design and execution as it is possible to achieve. In the carpet on the left we have a design in which the artist has striven to reproduce a bunch of flowers and grasses, arranged with studied negligence, as nearly in imitation of nature as is possible with the material at his command. Regarded simply as a pictorial design or a careful study of nature, the work is very well done, and such a perfect reproduction of the pattern in the textile is a remarkable triumph of mechanical skill. These bouquets of flowers are dispersed at intervals on the carpet, and connected by delicate garlands of flowers strewn in irregular lines over the surface. Bees, dragon-flies and birds are dotted down here and there

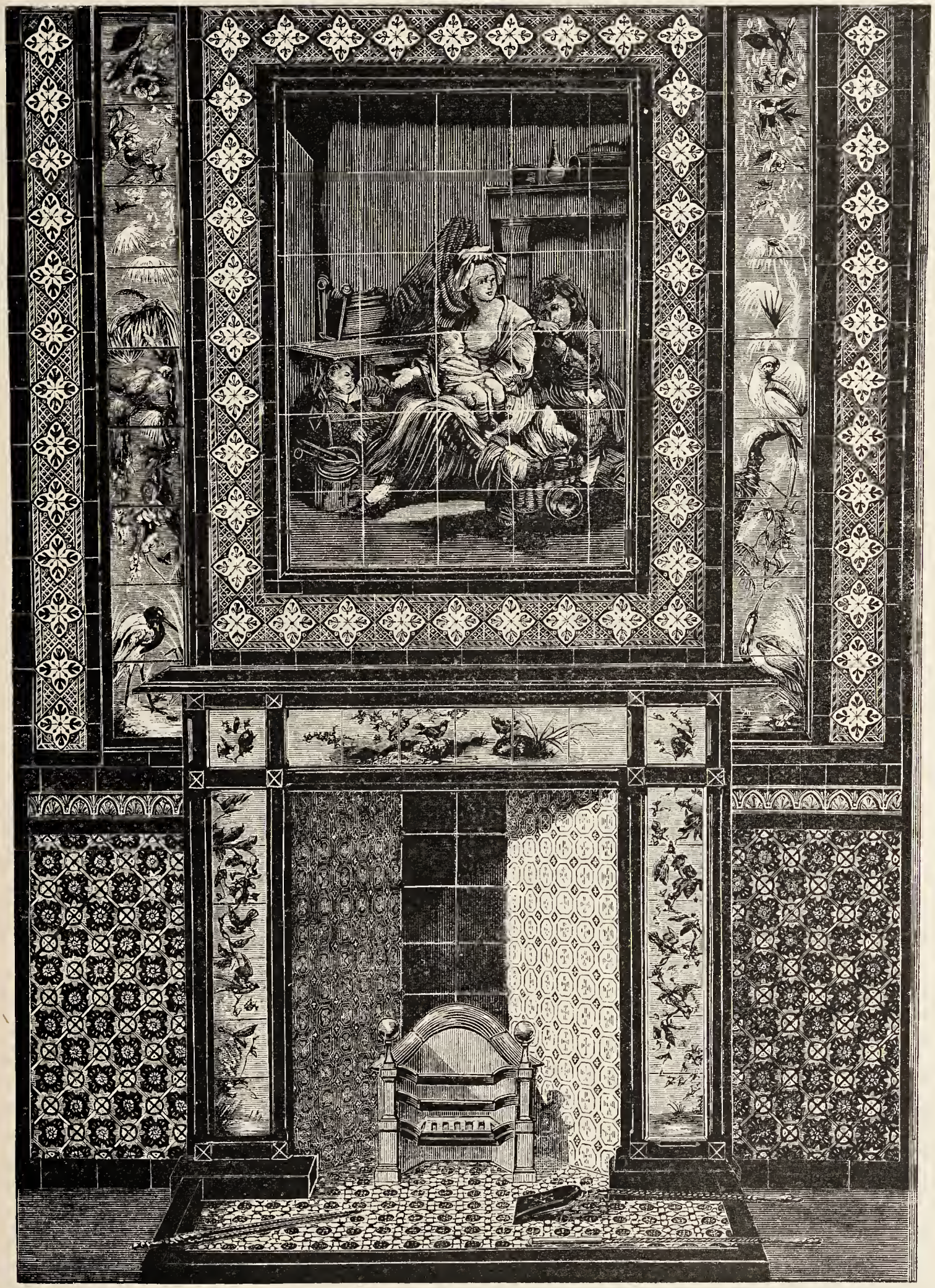
between the flower-garlands in a way to disguise the repeats of the pattern as much as possible.

The second design is conceived in the same spirit as the above, but with rather more of a geometric arrangement of the several parts of the pattern. Several bouquets of flowers, having the same general form, but differing slightly in detail, are disposed over the surface of the carpet at regular inter-

Glass Plaque: M. Lobmeyr, Vienna.

vals, and connected together by a running vine, woven in and out between the other figures.

From the display of artistic pottery, bronzes, fancy furniture, etc., made by M. Jules Houry, of Paris, we select the group of objects illustrated on page 378. M. Houry, beside being a manufacturer, is also an agent for *objets d'art* and *fantaisie*, and his stall therefore contained a collection of ornaments and articles of furniture of the most varied description. M. Houry, however, makes a specialty of porcelain plaques of a novel description, for mounting in etageres, jardinieres, etc. These plaques have figures and arabesque patterns modeled in very low relief, over which a transparent blue glaze is floated before



Ornamental Tile Mantlepiece: Minton, Hollis & Co., London.

the second firing. The effect is to produce an even surface, under which the ornamentation is seen in shades of color varying with the thickness of the glaze. An example of this kind in the group before us is the oblong plaque with rabbits, grotesquely shaped birds and scrolls.

Below this plaque is a jardiniere, made of faïence, with masks and fanciful figures painted upon the surface in colors, mostly green, blue, brown, and yellow, like in the faïence of Gien.

The remaining objects in the group are bronzes, executed with that deli-

Turkish Green Crockery: Turkish Court.

cacy of workmanship and finish for which the French are celebrated. Three different styles of work are shown here; as elegant as any, perhaps, being the one most simple in design and ornament.

The famous Staffordshire potteries, as represented by Messrs. Brown, Westhead, Moore & Co., of Staffordshire, furnish the Group of Pottery represented on page 379. Here are several beautiful designs for jardinieres, fruit- and card-baskets, a cup of a novel shape, another decorated *à la Russe*, a line of tiles which this firm make in great variety, and an ornamental vase decorated after the manner of Bernard Palissy. This last-named object is an elaborately wrought work, great care having been taken with the enamel coloring, which is very rich and varied. In others of the group there are examples of

figure-modeling, the most noteworthy specimen of this kind being the little figure who, from the weight of the basket he is carrying aloft, may be taken to represent the infant Hercules.

Still further examples of MESSRS. BROWN, WESTHEAD, MOORE & CO.'s manufacture may be seen on page 381 The porcelain vase of ovoid shape, in the

Carved Bedstead: Ferrie & Bartolozzi, Florence.

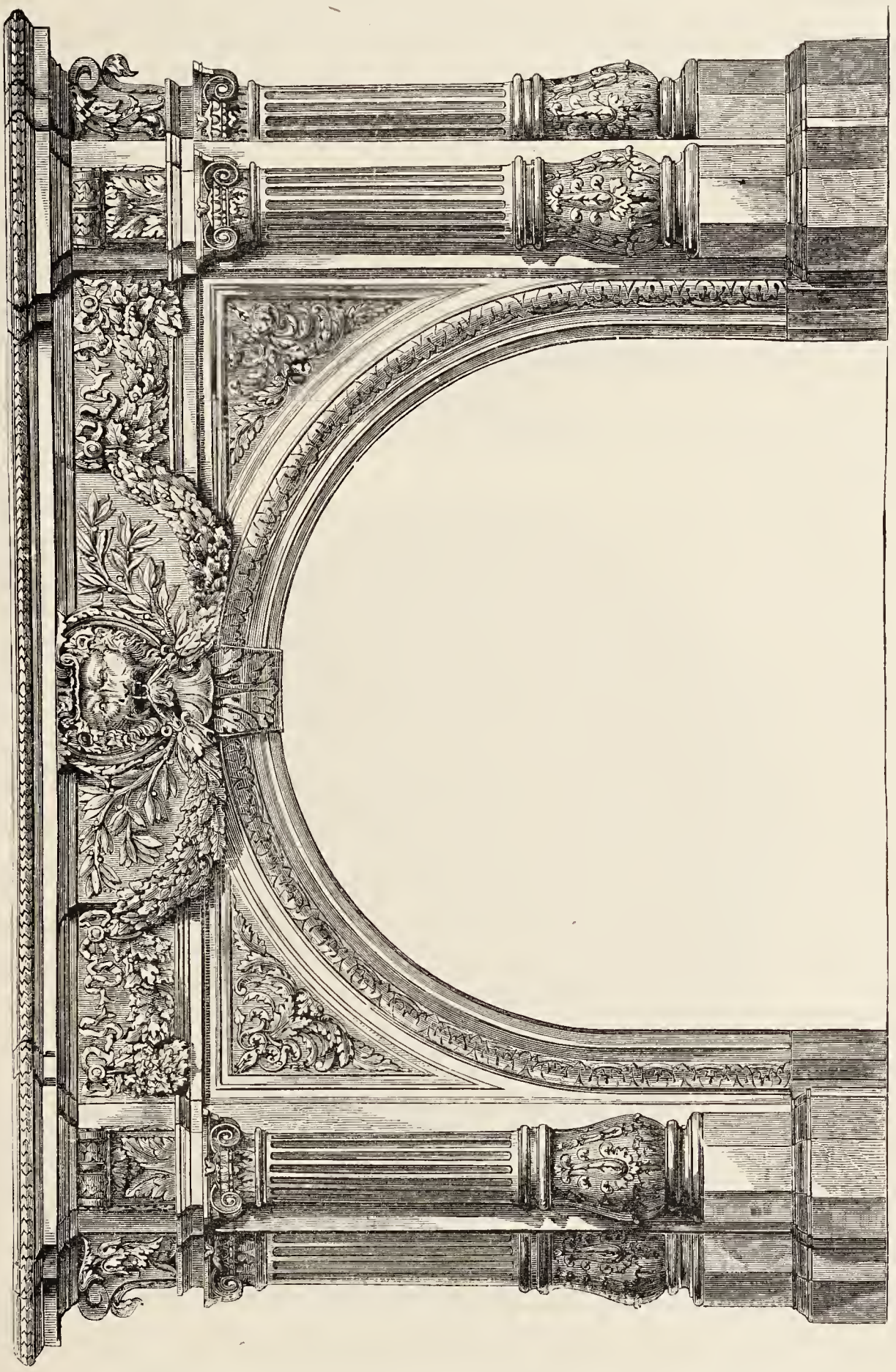
upper, left-hand corner of the page, attracted attention by its decoration and ornament as well as by the rich, even coloring of the body of the piece; these latter qualities being difficult to obtain on large surfaces. The handles of the vase are ram's heads, modeled after nature. Between them are suspended garlands, so disposed as to form frames for the medallion portraits that enrich the sides of the vase. We have on this page, also, examples of ornamental tiles suitable for walls, floors and chimneys; and in one corner is a single tile,

painted by hand, suitable for any decorative purpose. The design is a simple one—a palm branch with a pair of parrakeets perched on one of the shoots; but it is so delicately painted and colored, and evinces such an artistic feeling in treatment that the tile might worthily be framed and hung in a room as a wall-ornament. Below this tile are two plaques, decorated with flower designs after nature and scroll-work geometrically disposed, both of which illustrate the high class of talent employed by this firm.

Carpet: Tompkinson & Adam, Kidderminster, England.

The section of CARPET, engraved on page 382, is from the exhibit made by MESSRS. TOMPKINSON & ADAM, OF KIDDERMINSTER, ENGLAND. Only a portion of the central pattern is shown in our illustration, but the design of the border is given in full. It will be seen that this is quite elaborate in detail, and that the lines are so disposed as to make it a strongly marked feature of the whole pattern.

The IRON GRATE, on page 383, was exhibited in the extensive display made by STEEL & GARLAND, OF SHEFFIELD, ENGLAND. The principal feature of the work, aside from the general design, is the decoration of the panels. These have been enriched with figures, executed in low relief, in imitation of Japanese work of a like nature. The effect is novel



Chimney-Piece: French Court.

and striking as well as highly ornamental, and is a creditable illustration of the character of work displayed by the above firm.

The exhibit of M. Lobmeyr, of Vienna, furnishes us with another illustra-

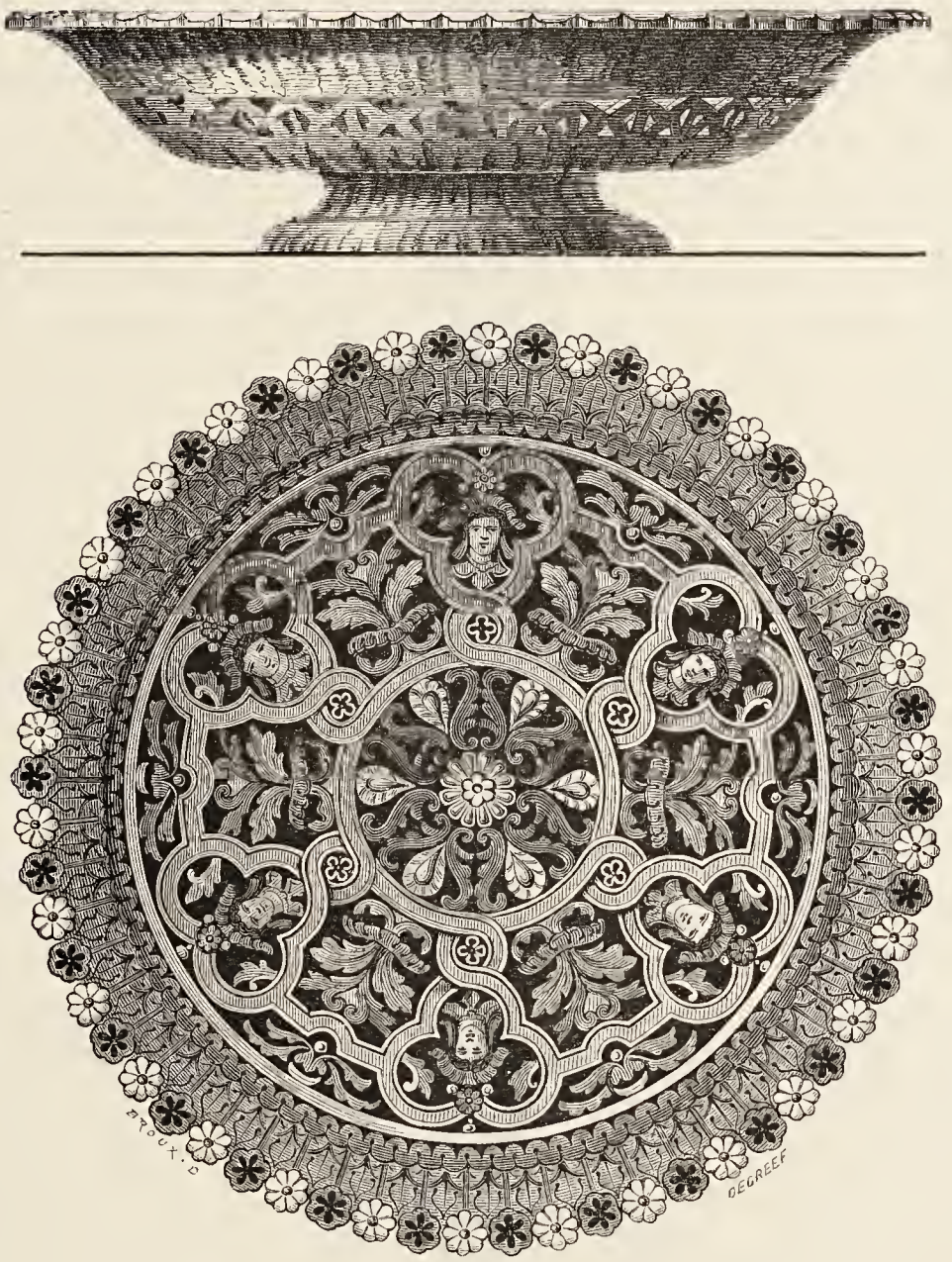
tion in the GLASS PLAQUE engraved on page 384. The characteristics of the workmanship in this beautiful object are the same as have been previously described in connection with other art-works from the same collection. The Plaque consists of a ruby red glass welded on to a transparent crystal. The pattern, as seen in our illustration, is then cut through from one surface to the other. The effect is strikingly beautiful. Other portions of the pattern are afterwards worked in with gilding to increase the richness of the design. As all the cutting has been done on the under side, the surface is perfectly smooth and polished; but in order to get the full effect, the Plaque should be viewed in transmitted light, when a prismatic effect of color is obtained, which is indescribably rich.

Our illustration on page 385 represents one of the most elaborate examples of tile decoration exhibited at the Centennial. It is a study for an ORNAMENTAL TILE MANTLE-PIECE, executed at the famous manufactory of MESSRS. MINTON, HOLLIS & CO., OF LONDON. It was undoubtedly the *chef d'œuvre* of their exhibit then, and at the present time it remains, one of the noticeable art-works, in the Permanent Exhibition.

In the engraving, the size and position of the several tiles have been purposely indicated by lines, in order to show the construction of the work, but in the original, the junction of the parts is so nicely adjusted as to quite escape notice. This must be borne in mind in studying our illustration, since the presence of any such strongly marked divisions would greatly mar the pictorial effect of the work.

Beginning with the fireplace, which forms but a very small part of the whole design, we observe that its sides are inlaid with small tiles of a light color, decorated with simple geometric patterns. But the panels above and on either side of the fireplace are of quite a different character. The upper panel, composed of six square tiles, is enriched with a charming little picture representing a bit of marsh land with grasses and flowers in bloom, and a pair of saucy little birds disputing the possession of the domain. The painting is vigorously executed in bright colors upon the white surface of the tiles. The side panels are painted in much the same manner. The surface of the tiles is white, and on it are delicate vine-sprays with brilliantly plumaged birds darting in and out between the leaves. These panels and the broad shelf above them

make up the accessories usual to a fireplace; but they are but a portion of this design. On either side, the portion of the wall usually wainscoted is covered with figured tiles, making a diaper pattern finished with a border or dado of another design, and above this the whole wall-surface up to the ceiling is decorated in the same manner. In the centre, above the mantle-shelf, is a

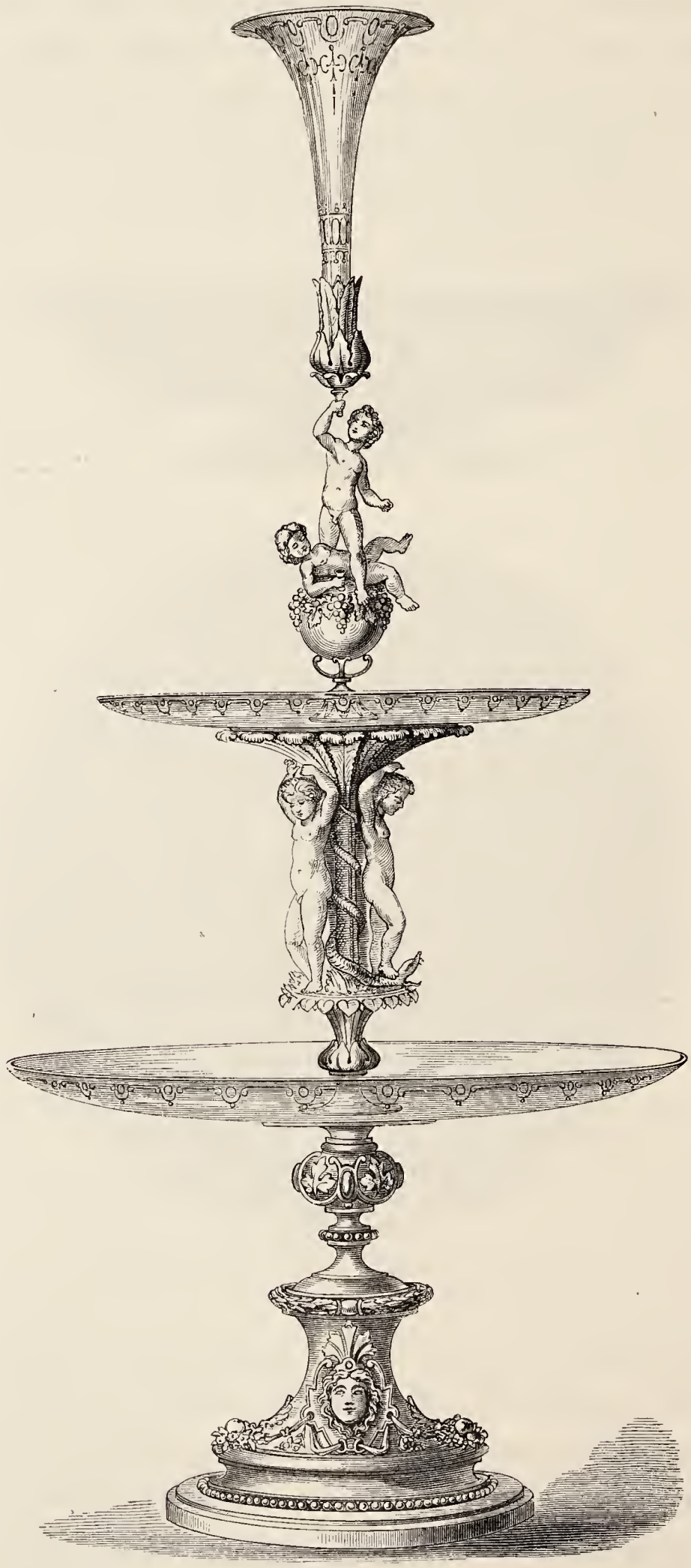


China Plaque and Basin: French Collective Exhibit.

picture, some three feet wide by four feet high, framed in tiles. Unlike any other part of the composition, this picture is painted in sienna-brown on a white ground, no other colors being used. It represents the interior of a peasant's cottage and a group of four figures—the mother with her babe sleeping upon her knee, a half-grown lad leaning upon the back of her chair, and a younger boy seated at her feet. It is bed-time for the little fellow, but

he does not want to go, and the mother seems to be appealing to the elder brother to set the little lad a good example and to go with him. It is a homely scene, such as might be seen in any cottager's home at eventide, but the artist has portrayed it with such fidelity, and made such an harmonious grouping of the figures, that the observer cannot fail to be pleased with the work.

The narrow upright panels, separated from this picture by the frame, and bounded on the other side by a strip of tiles similar to those in the frame, are painted in a like style to the panels around the fireplace, but with greater brilliancy of color and execution. We have here glimpses of a tropical forest alive with gorgeous-plumaged birds and resplendent butterflies. The artistic excellence of these pieces is as great as in any other part of the work, and the variety and richness of the color in them is astonishing, when we consider that all have to be of a nature ca-



Épergne: Zimmerman—Collective Exhibit of Germany.

pable of withstanding the action of the heat in the firing to which they are subjected.

Some curious examples of TURKISH CROCKERY are shown on page 386. These specimens represent a ware very common in Turkey, and one which is made with very little variation of form or in the method of manufacture in various parts of the empire. The material is a common red clay, which is moulded and baked in the kiln into a porous earthenware.

After this preliminary baking, the vessels are covered with a greenish-colored silicious glaze and subjected to another firing, which fixes the glaze and renders the vessels impervious to liquid. Although this crockery is designed for the commonest uses and is very cheap, the forms are often exceedingly graceful, as, for example, in the group before us. All are hand-made, and for this reason each one is apt to have some individual merit of its own. Some are ornamented with designs in relief made of strips or bits of clay modeled to the maker's fancy and stuck on to the surface of the vessel while it is green—that is, unbaked. Two of the examples in our illustration are enriched in this way. In the Centennial exhibit of Turkey there was a case full of this curious ware, which attracted much attention, both on account of its novelty and the artistic merit of many of the pieces. Some of the specimens were only partially glazed, in order to show the quality and character of the material from which they were made.

Bronze Lamp and Stand: French Collective Exhibit.

To those who are interested in wood-carving, the Centennial Exhibition furnished valuable opportunities of studying the subject. The most noticeable

collection was in the Italian Court, and our readers already are familiar with a number of the finest examples in that exhibit. On page 387 we engrave another one of these works, a CARVED BEDSTEAD, manufactured by FERRIE & BARTOLOZZI, OF FLORENCE. Like all the other Italian carving shown, the characteristic of this work is an extraordinary skill in the use of the chisel. The artist works with an ease and certainty that make it appear almost impossible that he is treating a material so hard as wood. To look at the little figures that adorn this bedstead, one would almost imagine that they had been modeled in clay, so perfect are they in outline and feature. In the panels, also, and in the enrichments of the pillars, the frame-work and the frieze to the head-board, we note the same consummate skill. The material from which this superb example of wood-carving is made is walnut, a wood that is fine in grain and very tenacious. The artist has therefore been enabled to carve in it designs of wonderful minuteness of detail. In the foot-board there is a medallion, surrounded by scroll-work and arabesques, in which is depicted a Venus borne upon the waves, which could hardly be surpassed in metal for elegance and perfection of execution. The same may be said of the panels in the head-board, the central one of which represents Cupid and Psyche, and, in a less degree, the remark applies to the upper panel with its armorial bearings.

Faïence Vase: Italian Court.

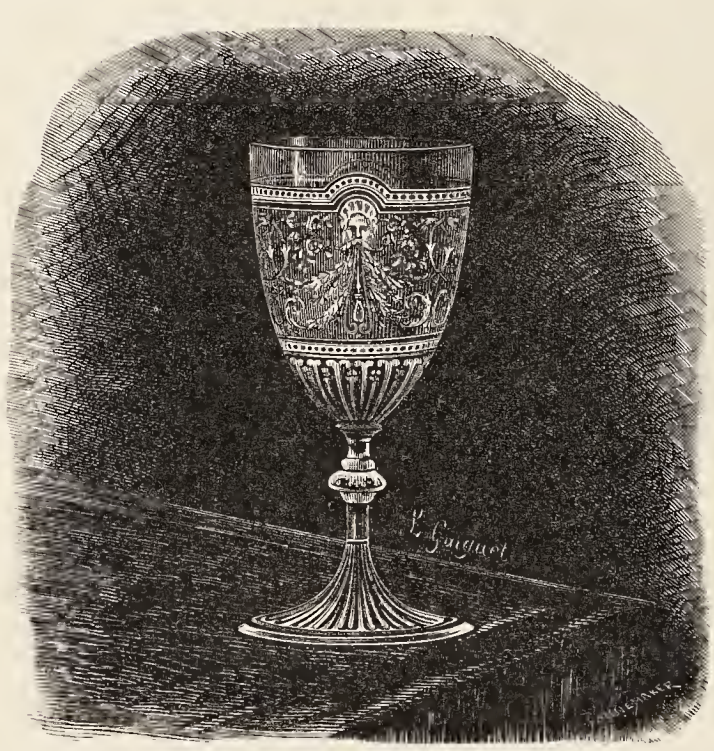
In no country in Europe was the influence of the Renaissance more keenly felt than in Italy, and nowhere has the present art-revival, in its restricted form of wood-carving, been marked with better results than in the same country. In the beginning of the sixteenth century the wealth and liberality of the great

noblemen, such as the Medici family, gave an impulse to the study of art, and schools were established in many of the Italian States where the study of the old classic models obtained. At this time, too, the best artists of the day gave their attention to wood-carving, and even worked in it themselves. Many of these works are still to be found in Italy, and with such models before them it is hardly to be wondered that the modern Italian workmen find in them instruction and inspiration to enable them to revive the glory of the Cinquecento.

Another example of KIDDERMINSTER CARPET, manufactured by MESSRS. TOMPKINSON & ADAM, OF KIDDERMINSTER, ENGLAND, is illustrated on page 388. The design with which this carpet is enriched is of a different nature from any of those appearing in the specimens of carpet already engraved. It is neither a composition of foliage nor an exactly balanced scroll-work, but a pattern suggesting the realism of the one and the geometric arrangement of the other. There are interwoven scroll figures, like plant-tendrils, distributed over the surface of the fabric at regular intervals; but while all these scrolls have a general resemblance, no two are exactly alike, and the same remark is true of the work that fills up the intermediate spaces. Therefore the effect of the whole is harmonious and simple without any of the sameness of repetition. By making the outline of his figures broken and indistinct, the designer has given a soft, mossy appearance to his work, suggestive of a yielding, restful sensation to the tread.

Porcelain Vase: Japanese Court

Carpets being of the nature of tapestry, and in olden times being made in much the same way, we find that the earliest designs for their decoration are very much in the style of tapestry designs. But it must be remembered that these ancient carpets, scarcely as large as a modern rug, were precious things,



Cut Glass: J. Green & Nephew, London.

intended almost as much for display as for use, and that elaborate pictorial designs were therefore measurably justifiable. Almost the earliest, if not the very earliest use of carpets in Europe was to spread them in the sanctuary

of cathedrals on high festivals. There is an ancient record referred to by the Very Rev. Dr. Brock in his book on "Textiles," which states that an abbot Egelfic, before the year 992, gave to the church at Croyland "two large foot-cloths woven with lions, to be laid out before the high altar on great festivals, and two shorter ones, trailed all over with flowers, for the feast-days of the apostles." He also states that old tapestry came so to be employed, and mentions "a large piece of Arras cloth, figured with the life of the duke of Burgundy," that was given to Exeter by Bishop Lacy, in 1420, to cover the floor before the altar.

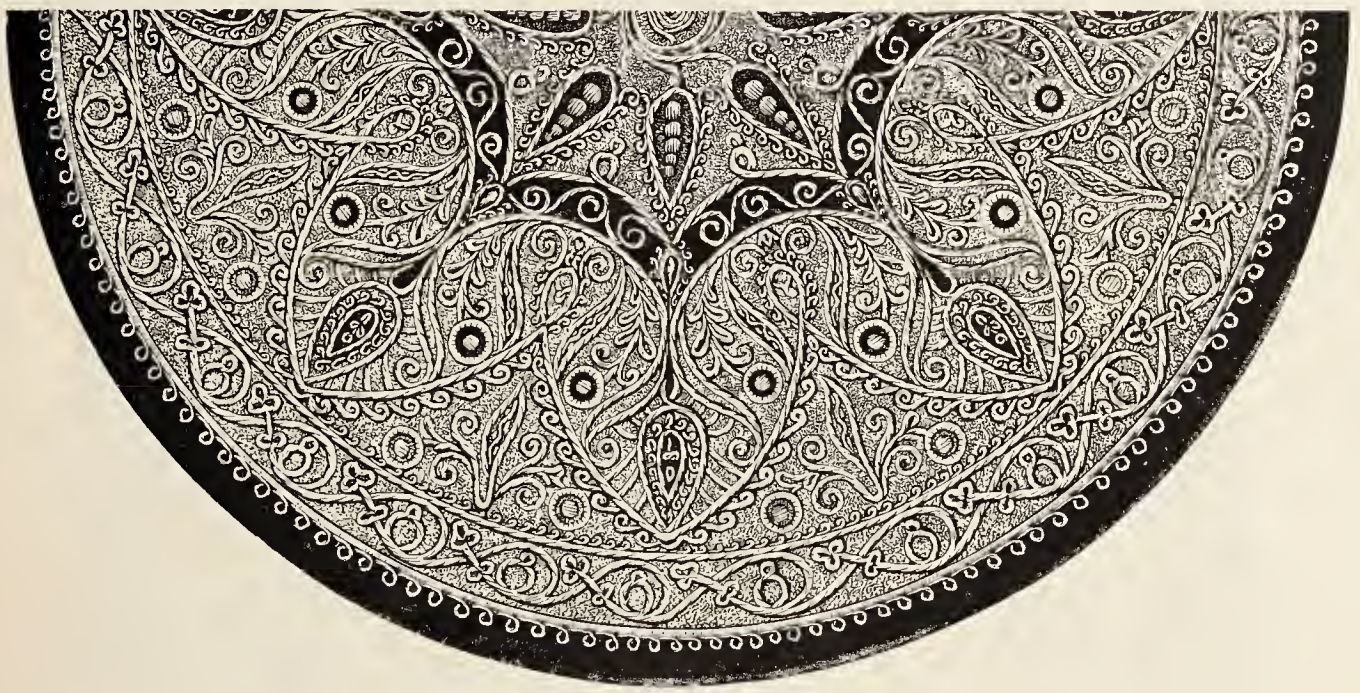
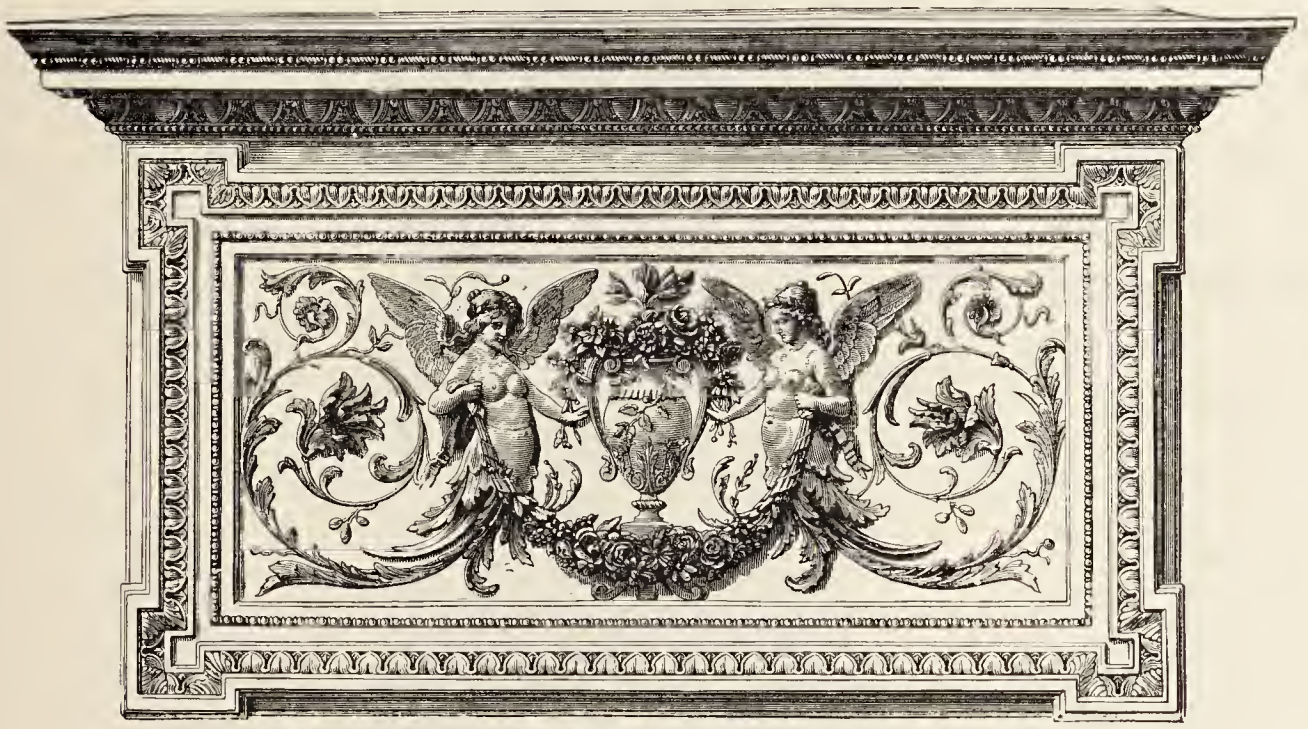


Table-Cover: Turkish Court.

When the famous factories of France were established, the carpets made for royalty vied with the tapestries in magnificence of design and artistic execution. The styles then in vogue have remained favorites in Europe ever since. Nor have they ever been surpassed, anywhere, in brilliancy of color and delicacy of finish. Hence we commonly see throughout Europe, in the finer grades of carpet, a design combining exquisite imitations of natural flowers, disposed in garlands and scrolls, with vases and shell forms, such as were affected by ornamentists of the Louis Quartorze period. Or, again, we see those arabesque designs with all sorts of natural objects grafted on a central stalk like the stem of a candelabrum. These objects are shaded and rounded and brought into relief with all the skill possible. In short, the suggestion of flatness is avoided as much as possible. Conceding the intrinsic beauty of these

Screen—Aubusson Tapestry : French Court.

designs, the question remains, Are they excellent, even in an artistic sense, as carpet designs? In old times when, as we have seen, carpets were more looked at than used, designs of flowers, or birds or beasts, or even pictorial representations were not out of place; but all that is changed now: carpets are made for use, to be walked over, and to be partly covered and concealed by articles of furniture. The eye looks down upon a carpet, not across horizontally, as a tapestry or curtain, and it is never more than from four to six feet above it; therefore all these considerations should be regarded in devising carpet designs. First of all they should be flat, because the surface on which



Casket: Collective Exhibit of Austria.

they are to be displayed is to be walked over. We do not wish to tread on birds or beasts or fishes or insects, crushing them under our feet, nor on flowers or vases or shells. We want a smooth, even surface and the semblance of one. Secondly, since we see the pattern from such a near distance, we do not want a huge composition under our feet that can only be seen in entirety from a perch in the chandelier. And thirdly, what is quite as important as anything else, the pattern, both in design and color, should be unobtrusive in character. It should be a field for the display of the furniture and ornaments as much as the wall-paper should be a background for the pictures in a room. Yet how often do we enter an apartment in which the carpet or the wall-paper, or both, thrusts itself most obtrusively upon the sight.

On page 389 we engrave an example of French sculpture—a MARBLE CHIMNEY-PIECE—shown in the French Court at the Centennial. Like all French ornamental stone carving, it is exceedingly elaborate and rich in detail. A lion's head, projecting from the entablature above the keystone of the arch, forms the central ornament. This is enclosed between garlands of flowers which untwine from the supports on either side and distribute themselves over the extremities of the frieze. The carving is in high relief, with elaborate execution of detail. The triangular panels on either side of the arch are filled with foliated scroll-work, and the columns have their proportion of ornament. All these elaborate enrichments serve to lighten the massiveness of the construction, which would be out of place in any other than a large and nobly proportioned apartment.

Silver Russian Beer Jug.

The illustrations on page 391 are examples of DECORATED PORCELAIN, from the French Collective Exhibit. The upper figure represents a shallow vase or dish, suitable for use as a card-receiver or for fruit or flowers. Indeed, a piece of this kind is constantly in demand for some purpose or other—if not for use, at least for ornament. The second figure is an ornamental plaque, elaborately enriched with scrolls and foliated tracery in the centre, and a beautiful border of a conventional character. The color-work in this piece is rich and brilliant, making it a striking ornament for a cabinet.

A charmingly light and graceful ornament for the table is the ÉPERGNE illustrated on page 392. It was exhibited in the Collective Exhibit of Germany by the manufacturer, E. G. ZIMMERMAN, OF HANAU. The materials are silver and crystal, the silver being employed in the ornamental standard, the

groups of cupids, etc., and the crystal for the vase and dishes. A very pretty feature of the design are the little figures about the stem of the Épergne, standing, balanced, as if about to plunge for a bath into the basin at their feet.

The elegant BRONZE LAMP and STAND, illustrated on page 393, are from the French Collective Exhibit. Both pieces are complete and perfect in themselves, so that they can be used separately, the lamp as a hall- or table-lamp, and the stand as a rest for a jardiniere, statuette or anything of a like nature. But the designer has evidently contemplated that the one will be used with the other, and has fashioned their lines accordingly, making the outline of the two blend into a harmonious whole of classical beauty and elegance.

Cupid and Psyche—Bronze: Italian Court.

On page 394 is illustrated a FAÏENCE VASE, from the exhibition in the Italian Court at the Centennial, made in imitation of the ancient ware. The vessel is of ovoid shape, resting upon a very small base, and surmounted by a short, narrow neck and mouth. Its surface is decorated with one of those quaintly drawn pictures for which the old faïence and majolica are famous. For handles, two naked satyrs stand in contorted attitudes upon bacchic masks.

Our next illustration, on page 395, is also an example of pottery, but of a vastly different nature. It is a PORCELAIN VASE of Japanese manufacture. Its shape is that of a truncated cone, the outline hardly broken by light handles and rings attached to the upper part of the body. The greater portion of the surface of the vase is enameled of a light blue color, enriched with exquisitely executed sprays of flowers. There is a border of the peculiar key pattern common as well in oriental as in Greek decoration, and above this a pattern of conventionalized leaf forms. All the decoration is rich with brilliant colors, picked, here and there, with gold.

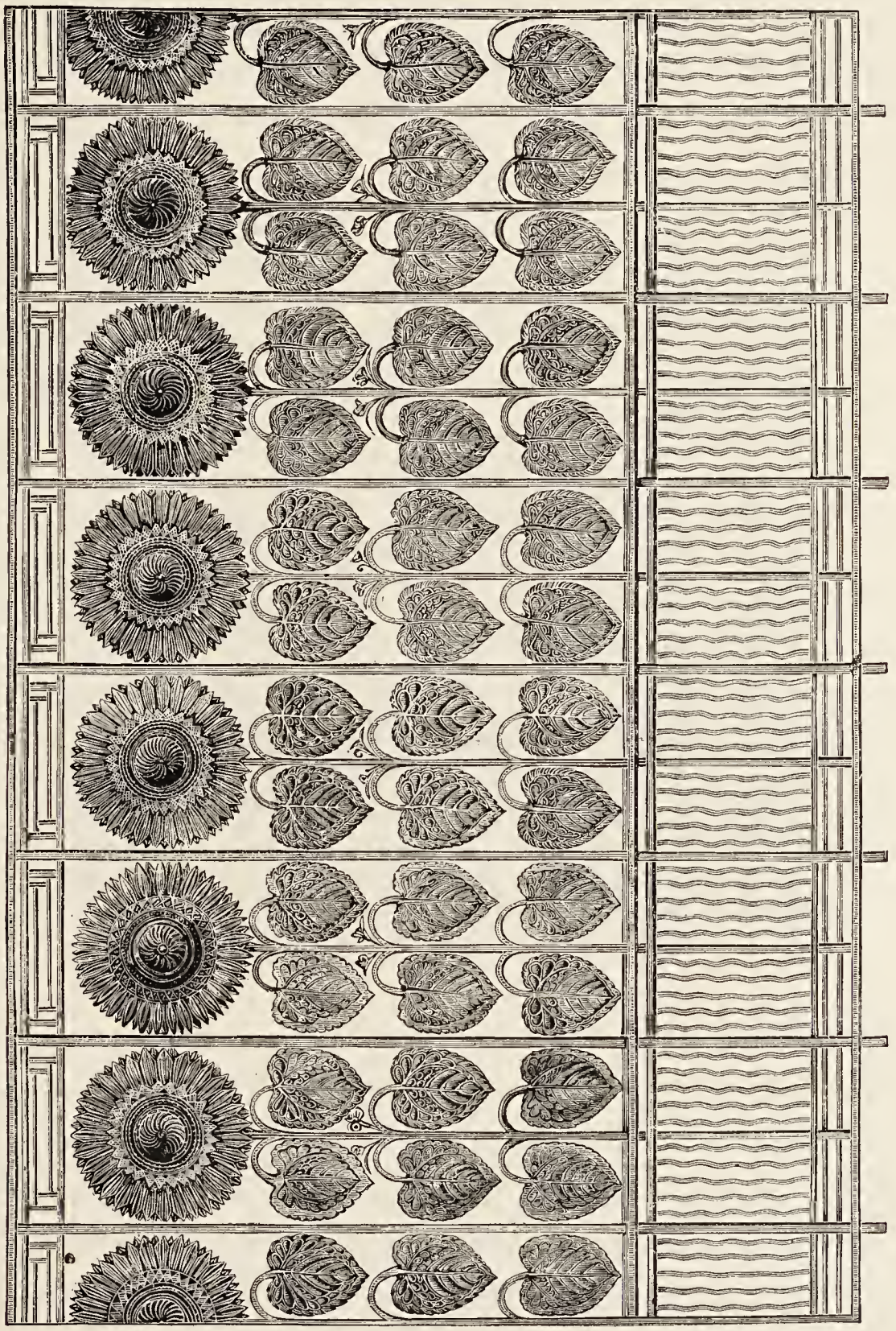
The beautiful shapes that can be made in glass, as well as the exquisite enrichment of which it is capable, are well shown in our illustrations, on page

396, of Cut Glass. These examples are from the establishment of M. J. Green, of London, and may be accepted as exemplars of the technical excellence of the manufacture in England. Each piece is of "blown" glass, the name expressing the method in which it is shaped, and in this way a brilliancy and clearness of surface is produced which cannot be obtained by any other means.

Ganymede—Terra Cotta: The Widow Ipsen of Copenhagen.

After the pieces have been thus shaped, the next thing is to cut and engrave the surface as may be required, and we have before us four several examples in a finished state. The delicacy and perfectness of this work is marvelous when we consider that it is all done upon a wheel, and that a slip is irremediable. In the goblets the extreme thinness and transparency of the crystal becomes the more apparent in contrast with the engraving.

The EMBROIDERED TABLE-COVER, illustrated on page 397, is an excellent example of Turkish decorative needle-work. It was one of the numerous examples of textile manufacture exhibited in the Turkish Court at the Centen-



Sunflower Pavilion; Barnard, Bishop & Barnards.

nial. As we have seen heretofore, Turkish carpets and rugs usually are of negative shades of color, rich and full, although a little sombre, but their other fabrics, for garments, wall-hangings, furniture covers, etc., are of the most

gorgeous description. In their designs for these, they exhibit the true oriental love for brilliant contrasts and glowing masses; the European eye is often bewildered with the intricacy of the patterns; yet a study of these works makes their high artistic excellence apparent. In the example before us a favorite style of workmanship is shown. The cover is made up of pieces of brightly colored cloths sewed together, after which the seams have been wrought over in broad lines of embroidery with silk thread. These lines form the outlines of the more marked portions of the design, the border scrolls, the leaf patterns,

Lace.

the central medallion, etc. The outlines and arrangement of color contrasts, however, make but a small portion of the work. All the intermediate spaces have been filled in with embroidery, with thinner threads of delicate tendrils and flowers and leaf-shapes, sufficiently conventionalized to harmonize with the geometric arrangement of the other parts. The effect of the whole is wonderfully rich and beautiful, especially when we study the detail and observe how exceedingly simple each part is in itself.

The well-known reputation of the French tapestry-workers is happily illustrated in the engraving, on page 398, of an AUBUSSON TAPESTRY SCREEN, which was exhibited in the French Court at the Centennial. The design is one of

those fanciful interweavings of scrolls, garlands and emblems of the arts into a light and gracefully balanced figure which French artists execute with consummate skill. It is a fashion of ornamentation that found favor in the gorgeous reigns of Louis Quartorze and Louis Quinze, and no where else has it since been brought to such perfection. Although intended simply as a setting for the tapestry, the carved wooden frame to this fine work should not be overlooked. Its ornament harmonizes with the design in the tapestry, and while

Lace.

sufficiently elaborate to be rich and elegant, it does not obtrude itself to a first place in the eyes of the observer. On the lower rail of the frame is a group of musical instruments, a laurel-wreath, and hanging garlands of flowers, all carved in full relief, yet so artistically considered in conjunction with the tapestry as to seem at a first glance at the illustration, a part of the tapestry itself.

On page 399 we illustrate a JEWEL CASKET, from the Austrian Collective Exhibit at the Centennial. The box is of silver, with panels ornamented with designs in *repoussé*-work. The richness of this ornamentation is seen in our illustration, which gives a front view of the case. The design is singularly

graceful and elegant, and is executed with marvelous delicacy and finish. The other panels are equally artistic in design and execution, though not so elaborate as this one. The work as a whole is a fine example of Austrian skill in artistic work in the precious metals.

Another example of artistic metal-work, this time of Russian manufacture, is the massive SILVER FLAGON, engraved on page 400. This piece was shown in the Russian Court among the magnificent collection of works in the precious metals sent by Russia to the Centennial. It is a splendid piece of work. The design and execution of the figures, wrought in full relief about the body of the flagon, is most spirited. Like the Russian bronzes, the work has a strong individuality of its own and a local color. The artist evidently has taken for his theme an episode in the life of one of the czars, probably Peter the Great. In contrast to the elaborate richness of this ornamentation is the rest of the flagon. The kneeling figure of a man forms the knop to the lid, but with this exception the vessel is severely plain.

Stole: Collective Exhibit of Belgium.

The story of Cupid and Psyche, one of the most beautiful of the Greek romances, has been told over and over again both in prose and verse. Learned disquisitions have been written to prove that Psyche was typical of the soul, and to trace in the legend its preparation for an immortal state. To painters and sculptors the beautiful story has been an unfailing inspiration, and there is perhaps no episode in the narrative that has not been rendered by the brush or chisel.

On page 401 we engrave a GREEN BRONZE GROUP, from the collection of bronzes in the Italian

Court, which has this story for its theme. We may imagine that the artist has chosen for his subject the supreme moment when Psyche, purified through suffering, was taken up among the immortals and united to her beloved by Jove himself.

Another classical story is told in the TERRA-COTTA GROUP, from the collection of the WIDOW IPSEN, OF COPENHAGEN, engraved on page 402. Here we have Ganymede, the most beautiful of mortals, who was carried off from Troy by the eagle of Jupiter, or by the Thunderer himself under that disguise, to succeed Hebe as the cup-bearer to the gods. No one who saw this fine group of statuary in the Danish Court at the Centennial will have forgotten how exquisite the workmanship upon it was, nor how much the rich warm color of the terra-cotta added to its effectiveness.

Book-Binding: M. Lortic, Paris.

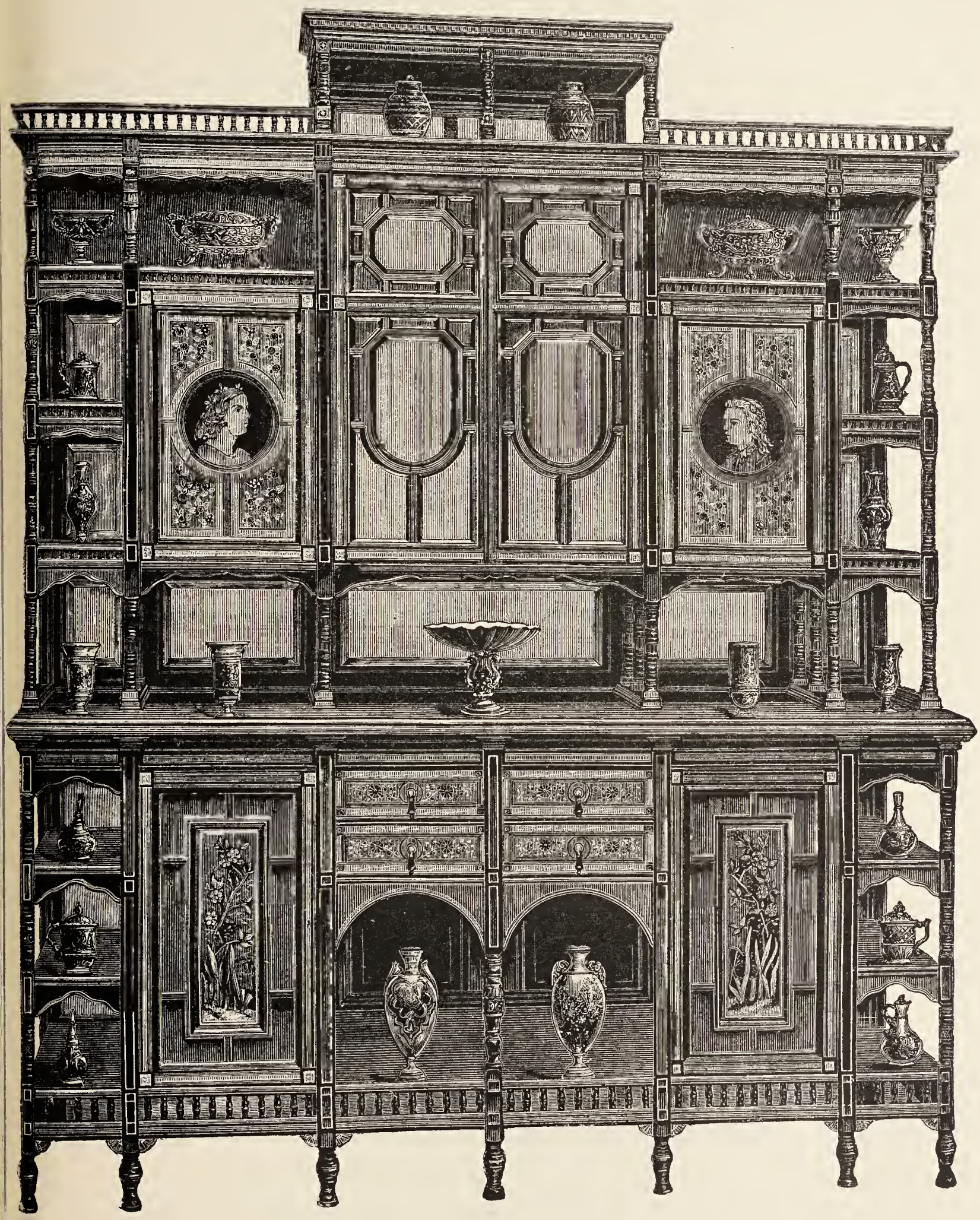
A thoroughly artistic and altogether satisfactory example of ornamental metal-work is the example of IRON RAILING illustrated on page 403. It is from the exhibit of MESSRS. BARNARD, BISHOP & BARNARDS, OF NORWICH, in the English Court at the Centennial. We have here an admirable illustration of the manner in which natural forms may be conventionalized without losing any of their characteristics, while the nature of the material in which they are to be wrought is not forgotten. The artist has taken for his model the common sunflower, and treated it with a degree of skill worthy of all praise. In the whole range of designs in ornamental metal-work in the Exhibition, we remember no one more admirable in every way than this.

The graceful LACE of SWITZERLAND, of which several choice examples have

been engraved in former pages of this work, is famous for the beauty and variety of its designs, and we illustrate on pages 404 and 405 additional

Lavori—Terra-cotta : Italian Court.

specimens of noteworthy excellence. In both of these works there is the same careful study of plant-life, and an artistic appreciation of its capabilities for ornament evident to the observer. Without a careful observance of forms in



Cabinet: Cooper & Holt, London.

their natural state no artist, however skillful, could have wrought these beautiful designs. Nor is this knowledge all that is required to make the lace pattern, for in the border we see graceful curves interwoven with delicate geometric

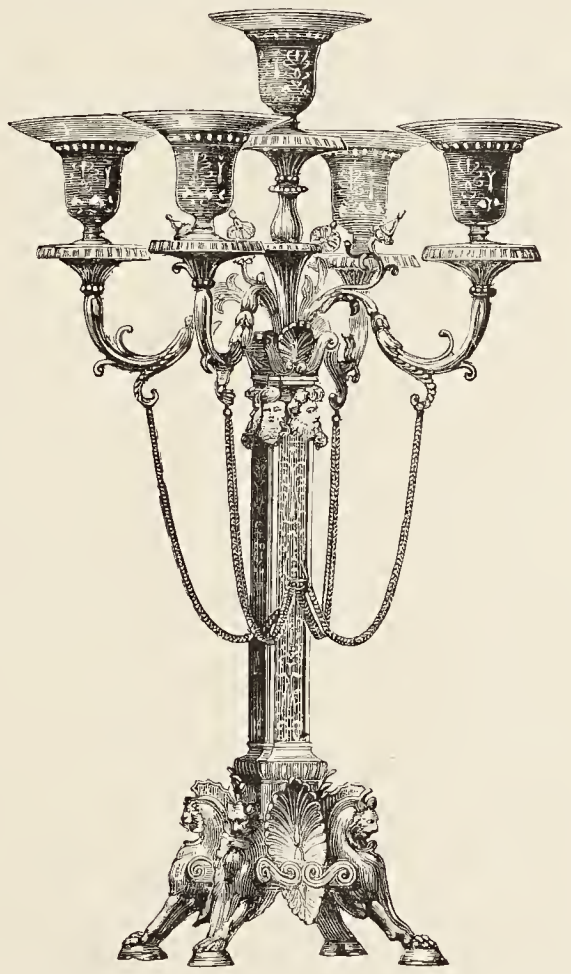
Faun, in Terra-cotta: Andrea Boni, Milan.

figures and these again succeeded by an edging of flowers and leaves conventionalized to make an even and regular finish to the whole piece.

From the collective exhibit of Belgium we take for illustration the EMBROIDERED STOLE, engraved on page 406. It is an astonishing piece of

needlework, such as is rarely wrought now-a-days, although in ancient times "when art was still religion" examples of equal richness and elaborateness were common enough. Each one of the six medallions, seen in the illustration, has been wrought in colored silks, stitch by stich, after a colored design with which the workers were provided. To give to the finished work the delicacy of expression, the soft gradations of color, in short, the picture-like effect of the pattern, requires a skill and nicety of execution only attainable after long practice.

The artistic BOOK-BINDING of France, for which that nation has long been famous, was well represented at the Centennial by many beautiful examples. One of these, a remarkably chaste and rich design, by M. LORTIC, OF PARIS, is shown in an illustration on page 407. The border is composed of a foliated scroll-work, wrought by the process known as "tooling;" and the same leaf-pattern is used in the medallion which is sunk into the middle of the cover. In the centre of each of the little flowers that appear here and there in the design are small ivory dots which project just enough to protect the surface of the leather from abrasion by other surfaces.

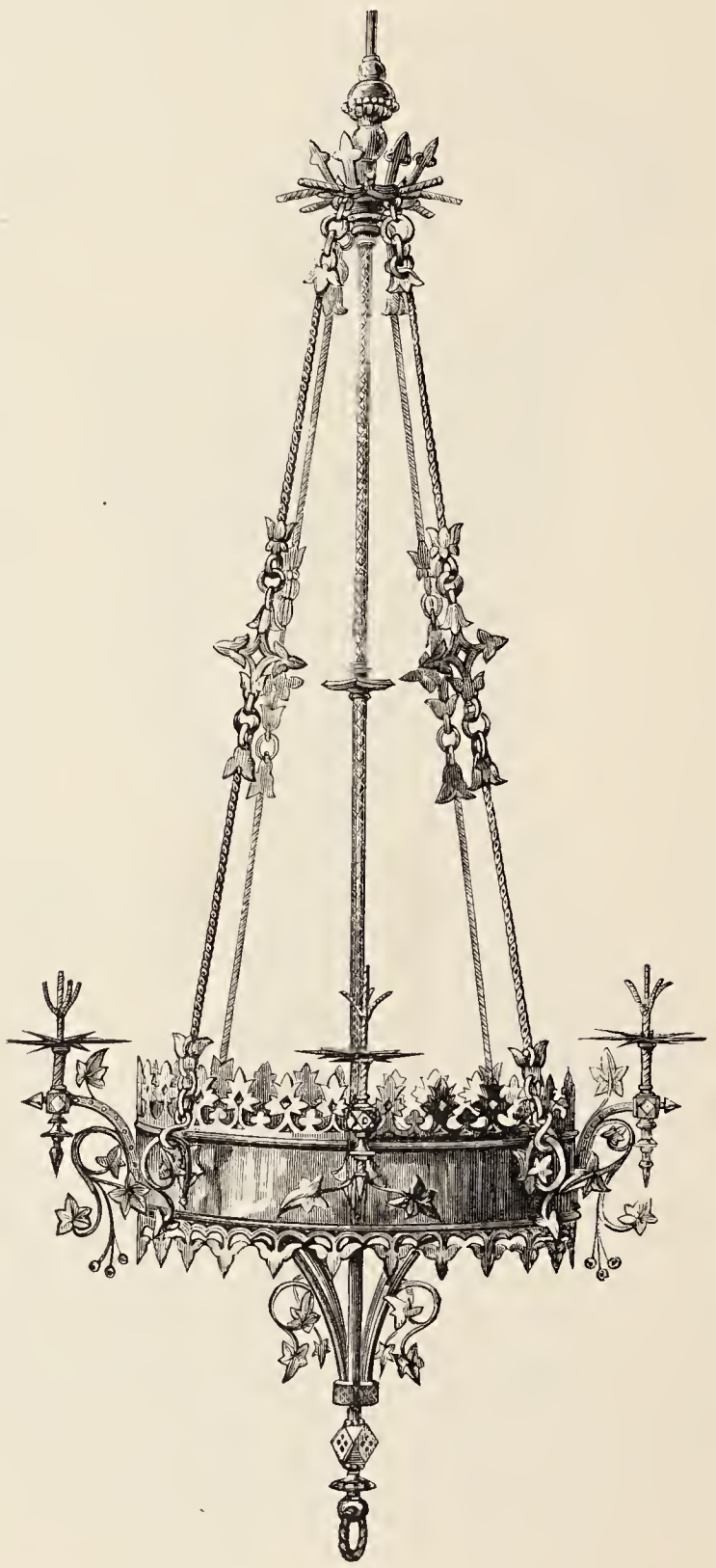


Bronze Candelabrum: French Collective Exhibit.

One of the prettiest fountain designs in the Centennial was that shown in our illustration on page 408. It is a terra-cotta group, between three and four feet high, made by ANDREA BONI, OF MILAN. Nothing could be more charming than the pose of these two little children, huddled together under the umbrella, from which drips the spray of the fountain. The group is not only an excellent work of art, it is a very clever adaptation of a work artistic in itself to a certain use. As a lawn group it would be exceedingly effective, the rich red color of the terra-cotta contrasting finely with the green of the sward.

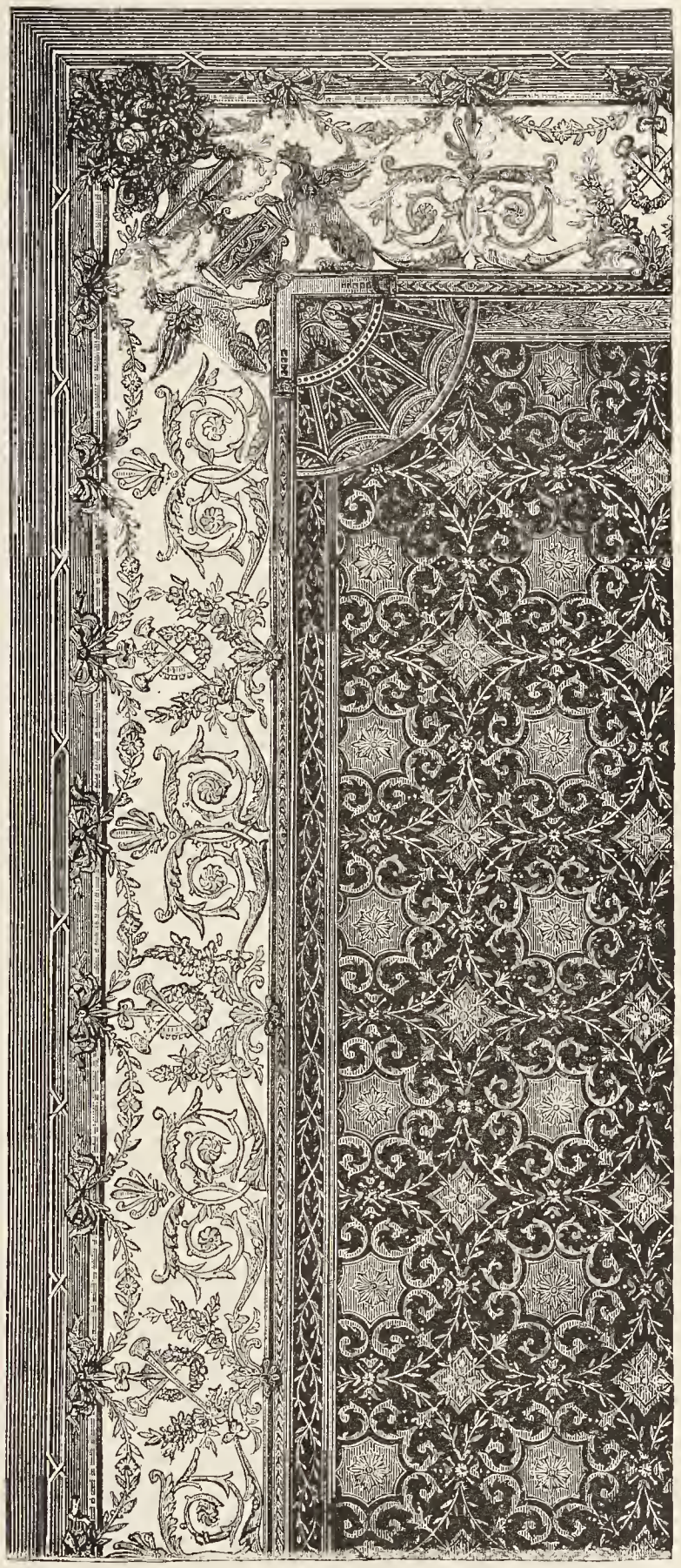
On page 409, we illustrate a CABINET, manufactured by MESSRS. COOPER & HOLT, OF LONDON, in which the strictest requirements of honest construction and

legitimate ornamentation have been complied with. The object is interesting as an example of the good results to be obtained by an intelligent use of means of ornamentation within the ability of any cabinet-maker to produce. In referring to this cabinet in this way, however, we must not be understood to mean that any cabinet-maker could produce its duplicate, for to do that would require mechanical appliances and skilled workmen equal to those commanded by MESSRS. COOPER & HOLT. But a cabinet constructed in walnut or oak, or in any suitable wood, on the lines of this one, as shown in our engraving, would be a success. If the maker could procure painted panels, so much the better, provided they are well done. But enrichment of this kind is not necessary to produce the pleasing effect conveyed in our illustration. The beauty here is due solely to the graceful proportions of the object as a whole and its harmonious outlines. Yet if the reader would have a realizing sense of the beauty of this cabinet, as it appeared standing among the other exhibits of furniture made by MESSRS. COOPER & HOLT, he must know that the outlines of the panels and the frame-work generally were brought into relief and prominence by inlayings of ebony and white wood. This added vastly to its richness and made a fitting setting to the painted panels which were executed in the highest style of the art. To complete the



Chandelier: Hart & Son, London.

effect, the shelves and recesses of the cabinet were furnished with skillfully chosen ornaments in faïence, majolica, and glass, presumably just such articles as would be placed there by the purchaser of the cabinet.



Carpet: Templeton & Co., Glasgow.

On page 410 is an illustration of a FAUN, IN TERRA-COTTA, BY ANDREA BONI, OF MILAN, selected from the collection of this artist's work, exhibited in the Italian Court, in the Main Building, at the Centennial. This collection was noteworthy for the excellence of the material used and for its uniformly good color. Even in the largest works there was no defect from shrinkage noticeable, the outlines appearing as clear and sharply defined as in the model. For lawn and garden adornment there is nothing better than these works in terra-cotta. They are better color than marble, and they do not stain and become dingy. Weather practically has no effect upon them, and they are light and easily moved from place to place. Finally, they cost very much less than works in stone or metal, and with careful modeling, terra-cotta reproductions of metal or stone statues would be little inferior to the originals. We have seen some excellent copies in this material of the best

Lace Curtain : Maison blanc, Paris.

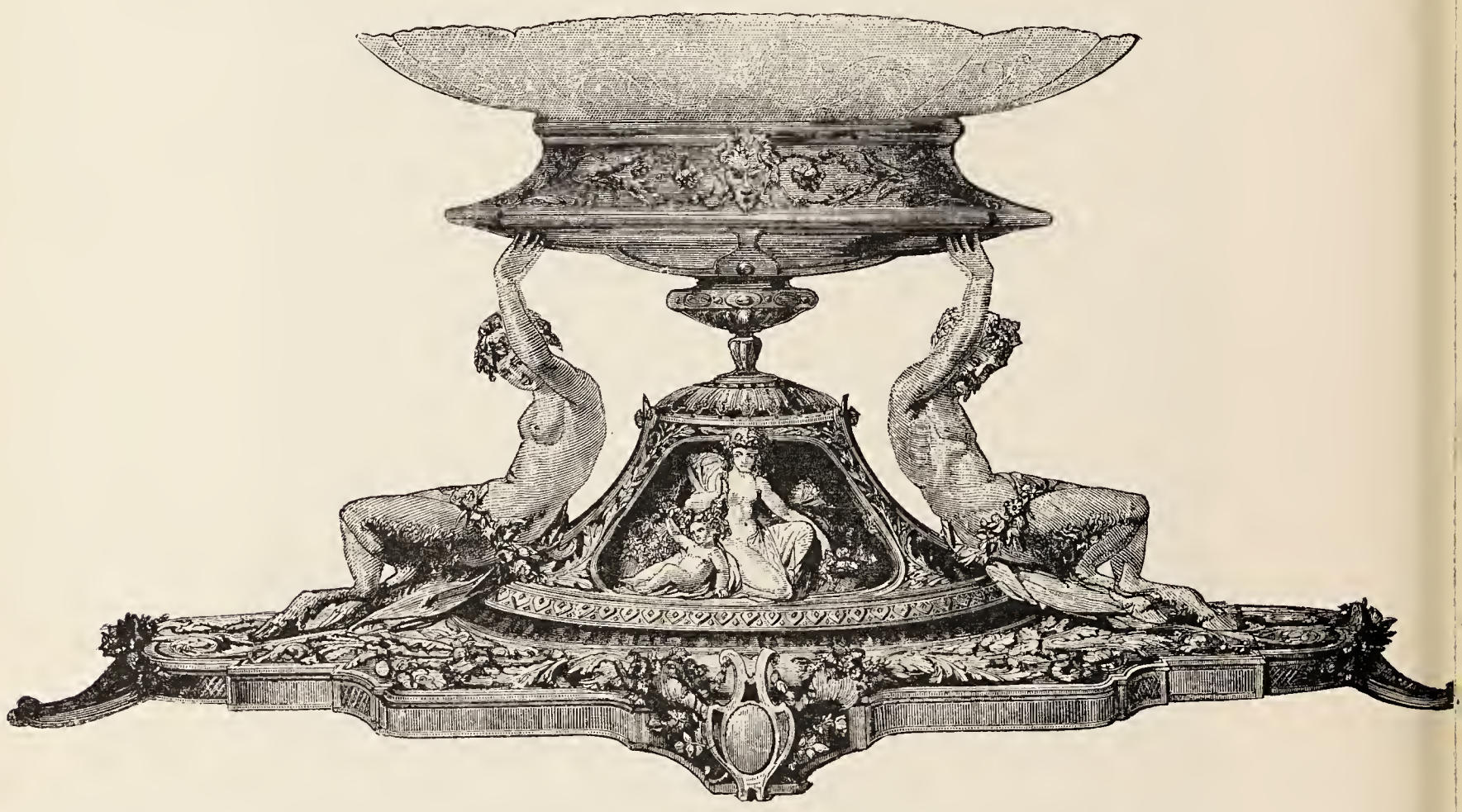
specimens of antique art, that could be bought at prices quite within the means of any one possessed of a lawn worth adorning in this way.

On page 411, we have an engraving of a BRONZE CANDELABRUM selected from the FRENCH COLLECTIVE EXHIBIT, which is as excellent in its way as the BRONZE CHANDELIER, manufactured by MESSRS. HART & SON, OF LONDON, shown on page 412. We speak of these two works together, because they give an excellent illustration, each in itself, of a proper consideration of use before ornament, and the adopting of the latter to that end. The CANDELABRUM, intended as a support for five candles in sockets set widely apart, has a short, strong

Glass and Silver Centre-piece: Elkington & Co.

stem resting upon a broad and firm base. The idea of strength, solidity and weight is conveyed by the couchant lions and the square pillar. On the other hand, the CHANDELIER, as something suspended from the ceiling, must be as light and graceful as possible. Observe how artistically this idea has been preserved in its construction. The central shaft, or tube, is no longer than is necessary to convey the requisite amount of gas to the four burners. These latter are arranged about a circle of brass, ornamented with leaves and tendrils. Even such delicate enrichments as those are used sparingly, to avoid any appearance of overloading and weight, and, in order to give an appearance of greater security four chains, suspended from the rosette at the ceiling, are fastened to this band.

The CARPET illustrated on page 413 was displayed by the manufacturers, TEMPLETON & CO., OF GLASGOW, in their extensive exhibit at the Centennial. The centre is woven in a geometric pattern of dark colors, making an excellent contrast with the border which is more elaborate in design and in which the colors are bright and clearly defined against a white or cream-colored ground. In the corners is a showy, ornamental finish, suggestive of the designs which originated in the great French factories and found immediate favor and many imitators throughout Europe.



Glass and Silver Centre-piece: Elkington & Co.

Something quite novel and striking in the way of curtain patterns is shown in our illustration on page 414 of a LACE CURTAIN, from the MAISON BLANC, PARIS. Heretofore the curtains which we have illustrated have been worked with designs of flower and plant forms, mostly ferns, treated in a more or less realistic manner. Here, however, conventionalized forms obtain. On the sides and at the base is an elaborate composition of scroll forms, such as French designers excel in inventing, but the centre of the curtain is patterned off with curved lines running diagonally across each other, making a sort of network.

In each compartment formed by these lines is a leaf-shaped figure standing out in strong relief against the delicate fabric in which it is worked. The curtain is an example of the astonishing fertility of invention shown by French designers in *repoussé* to the incessant demands of the public for novelty.

Two examples of the fine work produced by the MESSRS. ELKINGTON & CO., OF BIRMINGHAM, are illustrated on pages 415 and 416. These CENTRE PIECES, while alike in general appearance, are sufficiently unlike to make a separate study of each profitable. Both are admirable examples of happy invention

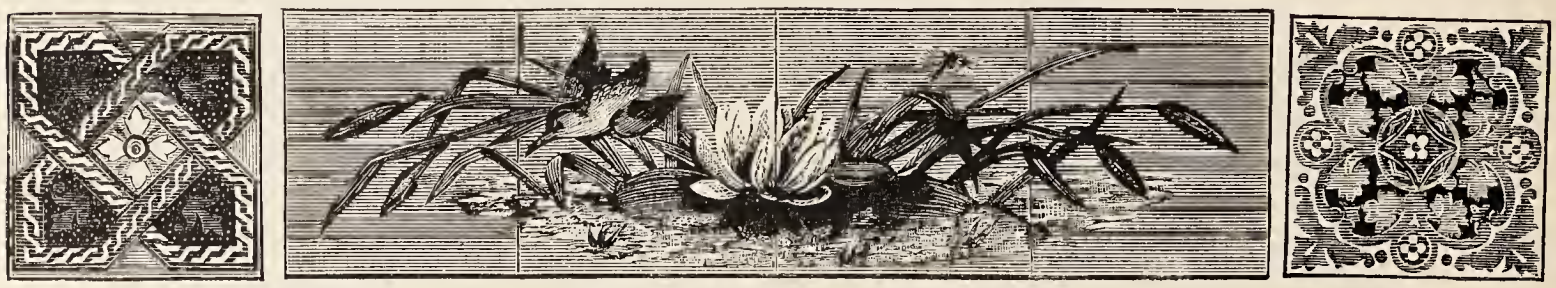
Silver Salver: Ritter & Co., Hanau.

coupled with rare technical skill in execution. In the first, two youthful Fauns crouch beneath the vase, which their fingers touch, as if balancing it on its pedestal rather than supporting its weight. The poses of these little figures are charmingly graceful. About the base, on the pedestal and around the bowl of the vase, are enrichments executed with that perfection of workmanship which won for the Elkington exhibit at the Centennial the encomiums of all lovers of artistic work in the precious metals.

The second piece, seen on page 416, is even more elaborate than the first,

and the medallion on the pedestal of the vase is enriched with a group of figures in relief, representing the Goddess of Plenty playing with a cupid. These two superb works,—and they may be considered as a pair, one for each end of the table,—are wrought in solid silver, every part being of this precious metal, except the engraved crystal dishes which rest on the vase.

An example of fine engraving on silver is given in the illustration on page 417 of a SALVER, manufactured by RITTER & CO., OF HANAU. In the medallion in the centre are figures symbolizing Night and Morning, drawn with spirit and



Ornamental Tiles: Minton, Hollins & Co., London.

engraved with great technical skill. Beneath and above them are winged dragons guarding the vases, from which emerge the plant-forms that make a wreath the central composition. Just within the upturned rim of the salver is an engraved border forming a frame for the rest of the design. The design here is very elaborate, especially in the sides where there are groups of flowers executed with such minuteness and delicacy that they will bear examination through a magnifying-glass.

Perhaps no better illustration of the improvement in the art of decorative

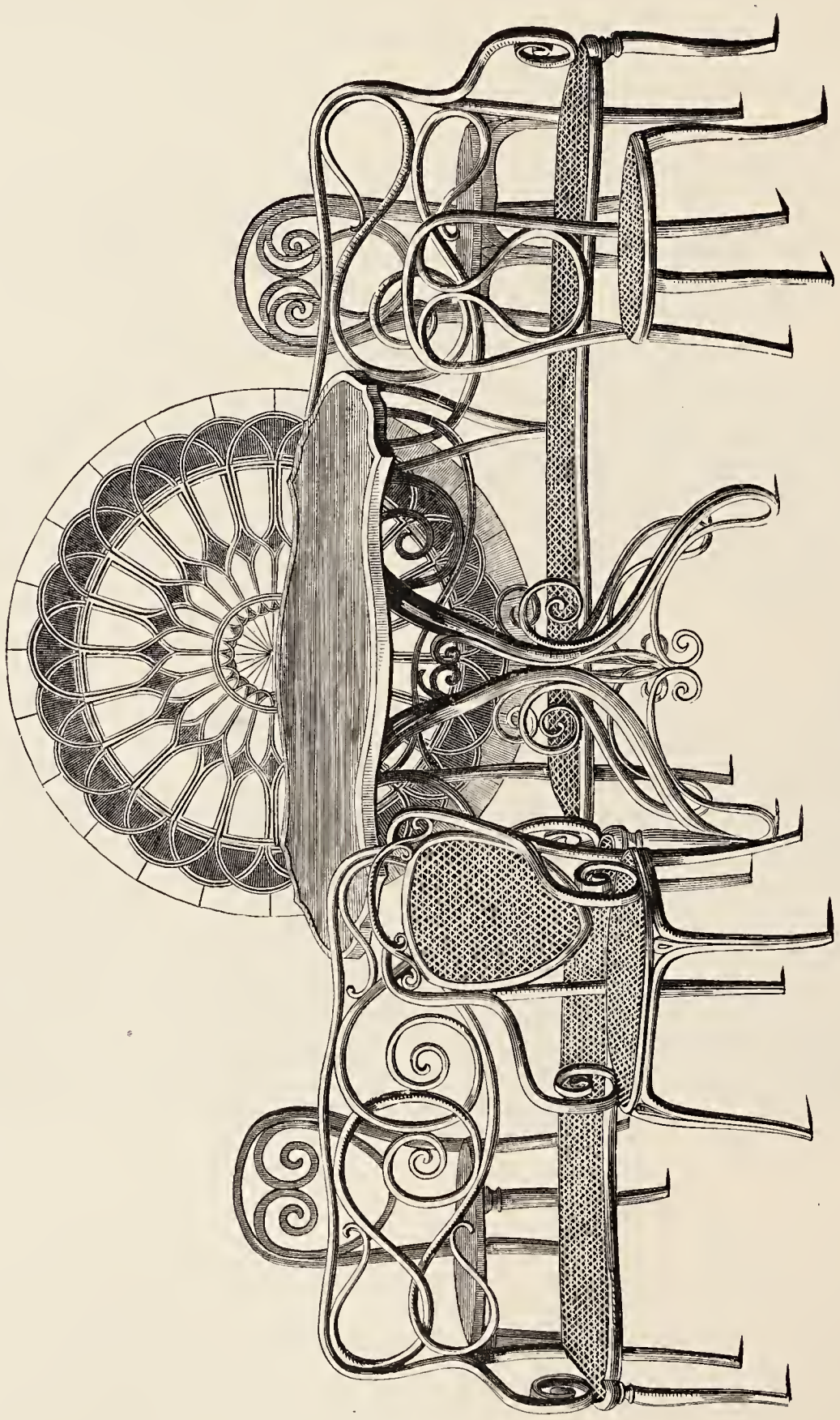
design in England in the last quarter of a century can be found than in a study of the tiles made during that period. The multitude of uses to which these articles are put at the present time has led to their manufacture in almost endless variety. And as these uses include in their range all between tiles designed for the commonest service and those designed purely for ornament,

Ornamental Tiles: Minton, Hollins & Co., London.

the decorative skill employed upon them includes the draughtsman of simple geometric figures and the artist learned in the use of pigments.

On pages 418 and 419 are illustrations of ORNAMENTAL TILES, selected from the small but choice display made by MESSRS. MINTON, HOLLINS & CO., OF LONDON, at the Centennial. The examples on page 418 include specimens of tiles suitable for wall and floor decoration, as well as finer grades, designed for jardinieres, mantle ornamentation and such like purposes. One set of four tiles

is decorated with a pretty bit of painting after nature, representing a group of water-lilies and grasses and a brightly plumaged bird darting down upon the water.



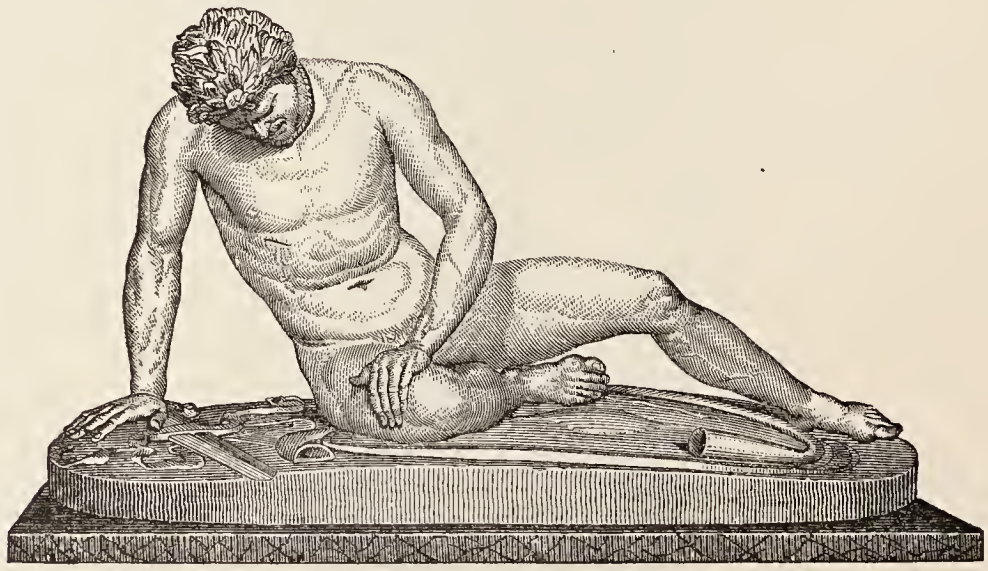
Bent-Wood Furniture: Austrian Court.

The arrangement of the tile patterns on page 419, so as to make a pleasing group, shows how kaleidoscopic, if we may be allowed the comparison, are the combinations which any one can make to suit his fancy. Around the

Industrial Cup; Elkington & Co., London.

specimens in the middle of the page, one of which, by the way, is an admirable example of a conventionalized flower and leaf, is a frame of tiles decorated by hand in a thoroughly artistic manner.

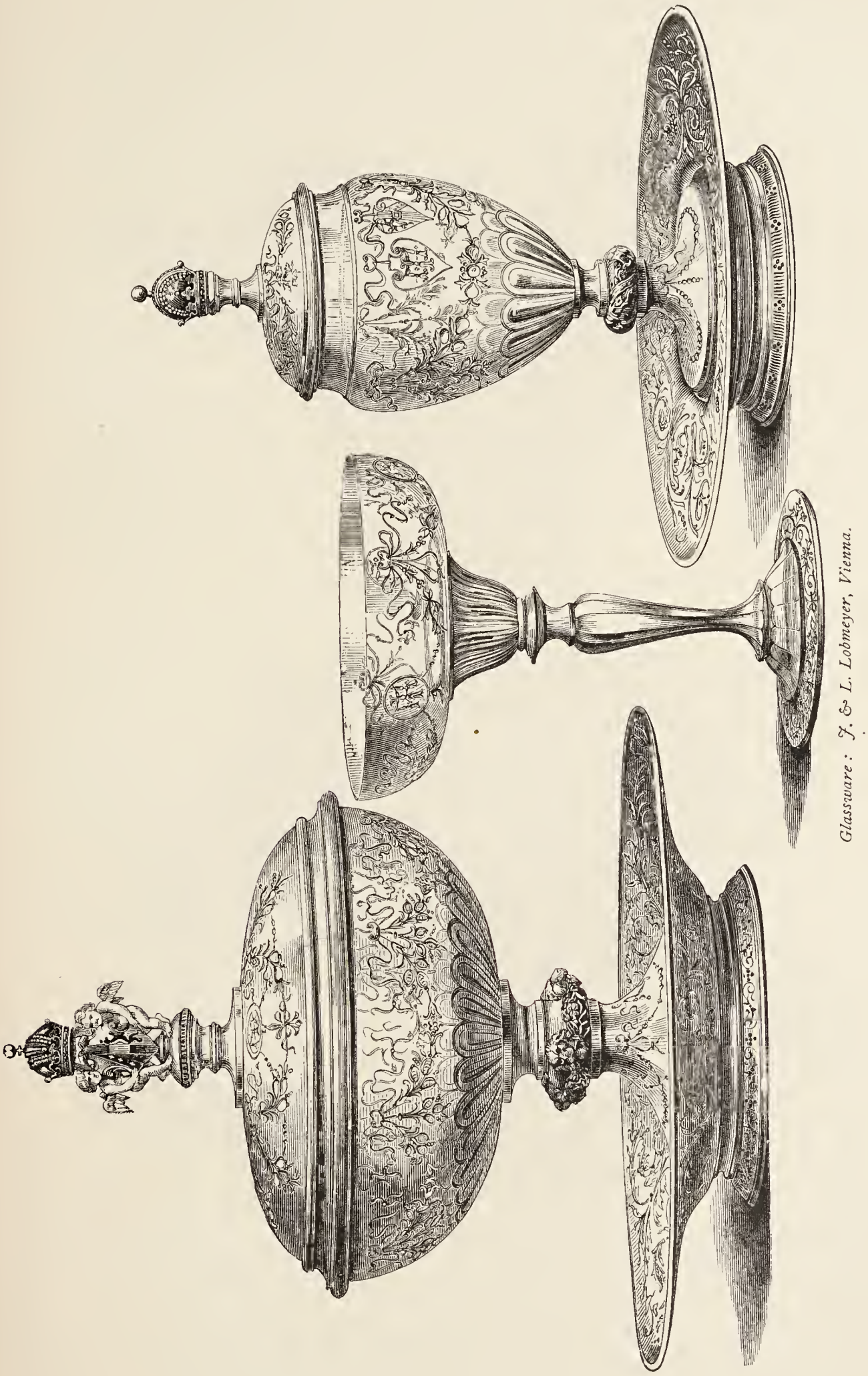
On page 420 we illustrate a group of BENT-WOOD FURNITURE, from VIENNA, which attracted universal attention by its novelty and the excellence of its construction. The name by which this style of furniture is known suggests the method of its manufacture. A strong, tough-fibered wood like our hickory, is thoroughly seasoned and then steamed and bent into the required shape. Considerable ingenuity and constructive skill is shown in making the several articles which, as is seen in our engraving on page 420, are exceedingly light and graceful appearing. Moreover the several pieces are astonishingly strong, and the very elasticity of the parts enables them to bear an amount of rough usage that would break



Copies, in Bronze, of Antique Statuary: Italian Court.

really stronger furniture all to pieces. This furniture is especially adapted to use in summer-houses, where its lightness and coolness make it agreeable to the eye and touch.

If the MESSRS. ELKINGTON & CO., OF BIRMINGHAM, ENGLAND, had made no



Glassware: J. & L. Lobmeyer, Vienna.

other contributions to the Centennial than the INDUSTRIAL CUP, shown on page 421, the beauty of the design and the exquisite workmanship herein displayed would have won for the manufacturers a first place among the art-workers in the precious metals. Yet this piece was but one in a group of many others, prominent among which were the Helicon Vase, the Milton Shield, and the Pompeiian Toilette, works unsurpassed in modern times for genuine art value. With many of these the reader is acquainted through the illustrations in these pages, and we now ask his attention to this Cup as equally worthy his regard. The general form of the design may be described as a flattened sphere, resting upon a stem with bosses above and surrounded at the base with a group of youthful genii, typical of the arts. On either side of the sphere or bowl are female figures, guardians of the railway and telegraph, reclining in such a way that the contour of their bodies and their upraised wings give a gracefully harmonious outline to the upper portion of the Cup, which is surmounted by a globe, on which is a charmingly poised figure, representing the Genius of Industry. On the body of the Cup, on either side, are large medallion-reliefs in *repoussé* symbolizing the results of Industry in the advancement of the world in

The Viking Vase: Swedish Court.

civilization and the progress of the arts and sciences. The remaining surface is covered with scrolls and emblems in low relief, all illustrative of the general design. The modeling of the detached figures, and there are seven in all, is simply perfect; the two principal ones, upon the sides of the bowl, being endowed with

Silver Épergne: Reed & Barton, Taunton, Mass.

an expression and individuality worthy of all praise. In technical execution, this work leaves nothing to be desired. Every detail is wrought with care and finish. The rendering of the texture of the skin on the nude surface of the figures, the drapery, and of the feathers in the wings are admirable. To appreciate the delicate manipulation that produced these effects, the work should

Silver-plated Tea Service: Reed & Barton, Taunton, Mass.

be studied by the aid of a magnifying-glass. In consideration of these elaborate excellencies, this Cup may well be placed with the group named in the beginning of this description, as one of the *chefs-d'œuvre* of the Elkington exhibit.

The Bronze exhibit in the Italian Court was scarcely such as the reputation of the Italians for art-works in this metal would lead us to expect; but such as it was, the collection could not fail of interest on account of the numerous

Silver-plated Tea Service: Reed & Barton, Taunton, Mass.

reproductions of ancient statuary of world-wide fame which it contained. Two of these, which the reader will recognize as the Spinario and the Dying Gladiator, are engraved on page 422. They are of a size suitable for cabinet ornaments, and are wrought in green bronze, which many prefer to the lustrous copper-tinged metal. Of course it is unnecessary to speak here of the merits of the statues themselves. Their worth is known to every student of art, and in these bronzes we have a miniature reproduction of the originals, in which every line is preserved with scrupulous accuracy. Indeed the technical execution

of the work is one of its chief excellencies, recommending it to the attention of connoisseurs wherever these statuettes are seen.

One of the most elaborate articles of the remarkable glass exhibit of MESSRS. LOBMEYER, OF VIENNA, is shown in the engraving on page 423, which contains several other specimens of the work of this famous firm. The piece referred to is the engraved Crystal Vase, on the left of the page, which, together with the Dish in which it stands, are superb examples of the highest art-workmanship in this branch of manufacture. The vase consists of two parts, a bowl and cover, both covered with engraved garlands and scroll-work, charmingly designed and engraved with marvelous skill. The cover is surmounted by a crown and a pair of cupids holding a shield with the arms of Austria. The figures of the cupids are of white glass, but the shield bears its appropriate colors and the crown blazes with jewels. There is color also in the radiated decoration about the bottom of the bowl, and the raised garlands of flowers on the stem. These, in contrast with the crystal and the delicate engraving, give an extremely rich and splendid effect.

Pitchers of Lambeth Faïence: Doulton & Co.

Of the other pieces shown in the engraving on page 426, the vase on the right is interesting as an excellent imitation of one of those curious antique vessels in transparent tinted glass, enameled over its surface with arms and quaint devices in threads and dots of bright color. Good specimens of this old ware are rare and valuable, but only an expert could detect a difference from the original in one of these clever copies.

The remarkable collection of artistic pottery and porcelain in the Swedish Court at the Centennial, attracted the admiring attention of every one interested in this subject. It was undoubtedly the most comprehensive exhibit of the kind in the exhibition, and the only one worthy of being called a representative display. Moreover, it was the only exhibit that contained any novelty in this

important branch of industry. In the collection were some specimens of a ware manufactured by GUSTAFSBERG, OF STOCKHOLM, called Argentina, in which silver had been successfully applied as a finish to porcelain. On some of the pieces the entire surface was covered with the metal, which was afterwards polished. The only indication that these articles were not solid silver was their lighter weight. On others the silver was used to produce a "dead" surface, for decorative purposes in conjunction with color, and here the beauty of the invention was manifest. In order to show the capabilities of the process to the best advantage, M. Gustafsberg had prepared an ARGENTINA VASE, which we engrave

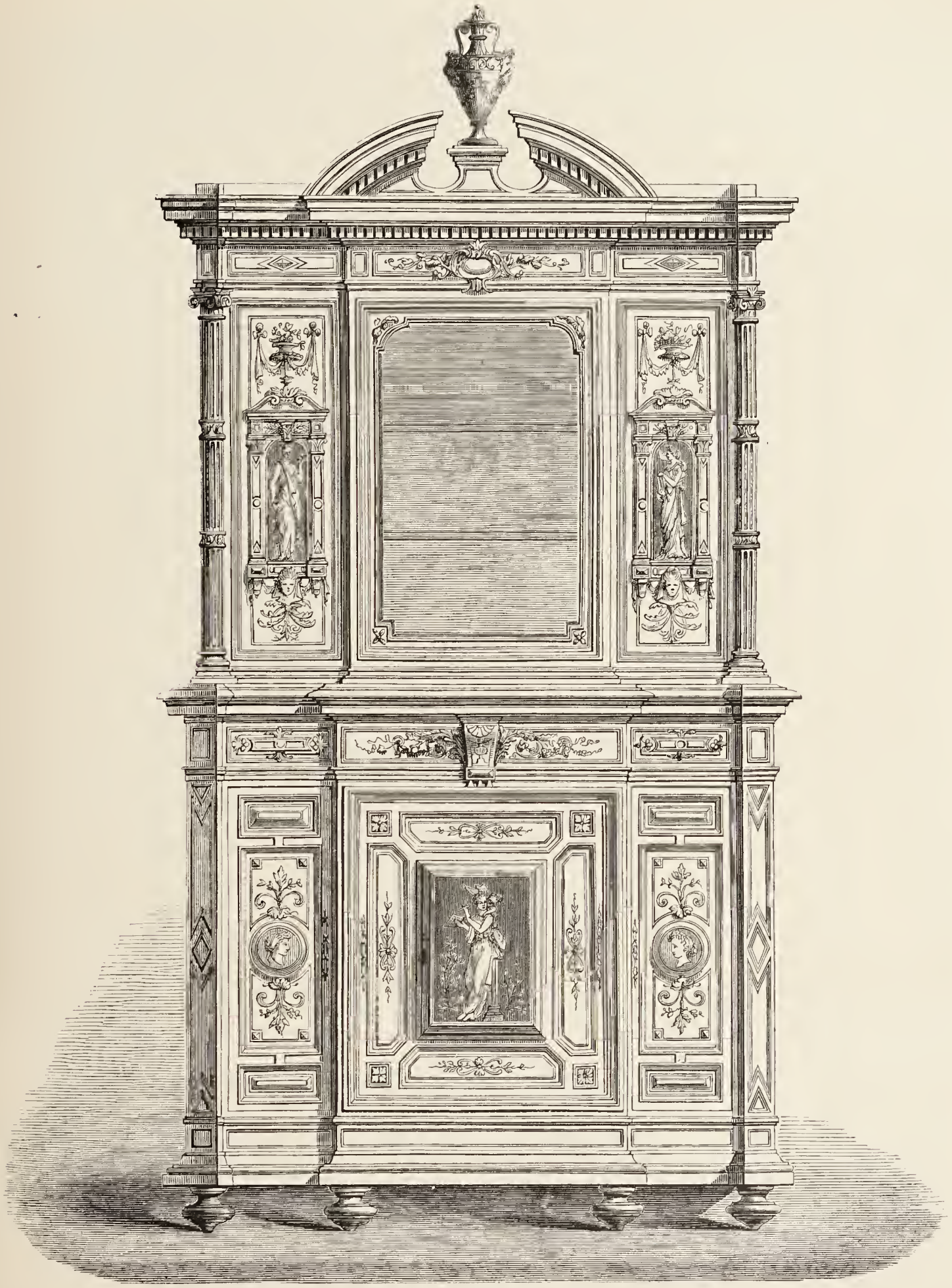
Majolica Épergne: Daniel & Son, London.

on page 424. It is a work of the highest artistic merit, worthy of rank among the *chefs-d'œuvre* of the Exhibition. In shape it corresponds to the ancient sepulchral urn of a Norse warrior; one of that race of Vikings whose sagas tell of conquests beyond the seas, when the rest of Europe was ignorant of the existence of another continent. Around the bowl of the vase is a series of nineteen medallions, telling the story of the hero's life, in a quaint yet eloquent language, more intelligible than words. Beginning with the ceremonies attending his birth, we see portrayed his early life, his instruction in the use of implements of war, his initiation into the stern reality of war and his

departure on some voyage of conquest. Here are the scenes of revelry on his return, the sacrifice of thanksgiving to his gods, his marriage, and the homage of his followers, his death on the battle-field, his funeral pyre, and the monument marking his final resting-place. As handles to the vase we have the dragons of his mythology, and the mysterious knotted bands, and the knot of Thör also are introduced in the ornamentation. The dimensions of this vase are twenty-four inches in height by fifteen inches diameter of bowl. In the

Ornamental Iron Work: Swedish Court.

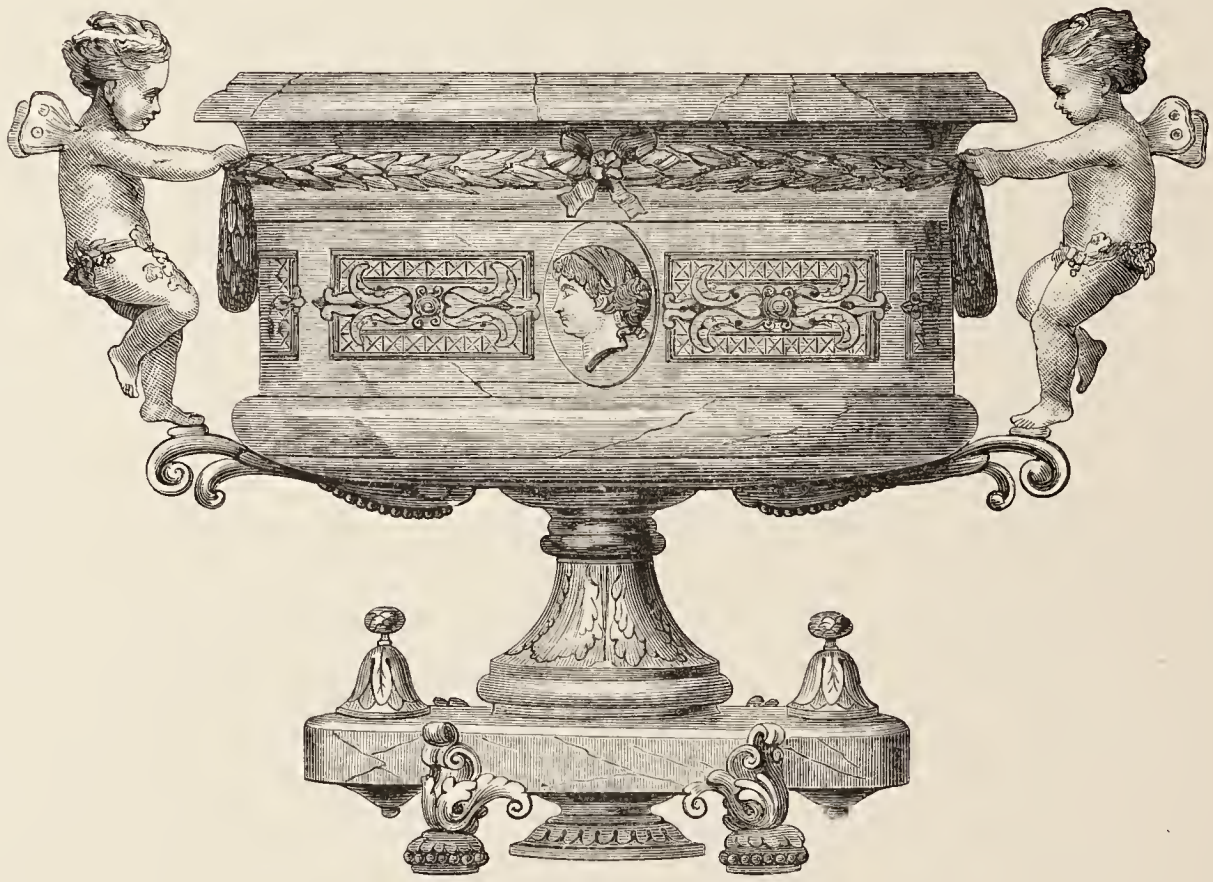
decorative treatment the porcelain body is finished by the process before named, with a deadened silver surface. The medallions are outlined in light blue upon a buff ground. The dragons, the bands and the other decorations are outlined in black or white on the buff ground, picked in here and there with vermilion. The contrast of color is strong, and gives strength to the design, which has all the vigor characteristic of the art-work of Northern Europe. But its unique excellence is the exquisitely soft and rich texture of the silvered surface, so admirably contrasting with the decoration.



Carved Cabinet: Italian Court.

On pages 426 and 427 we engrave a SILVER-PLATED TEA-SERVICE, manufactured by REED & BARTON, OF TAUNTON, MASS. The set comprises seven

pieces, of which the urn with its lamp and stand is the central figure. This service, in design and execution, is quite equal to anything of the same character that is produced in the solid metal. All the raised ornamentation, consisting of various kinds of flowers and plants, is finished with scrupulous care. There is hardly an inch of the whole surface of the vessels that is not thus ornamented. The workmanship is of the best. Each flower-petal and veined-leaf shows careful study, and the composition of the group evidences artistic skill of a high order of excellence. In short, between this service and another made of solid



Bronze Jardinière: M. Luton, Paris.

silver, there is no difference at all in art quality. The one is just as beautiful as the other, and of course, the difference in cost is largely in favor of the plated ware.

The demand for painted faïence, in England, especially, but also in other nations, in place of the so-called majolica, has greatly stimulated its production, and we see the results of the new departure in the several wares manufactured by the great potters of England and France, such as Doulton and Haviland. Doulton's faïence, which must not be confused with the Doulton ware, a totally different affair, was on the whole the most satisfactory indication of the progress of England in the direction of true artistic feeling and methods made in the

Carpet: James Templeton & Co., Glasgow, Scotland.

pottery exhibit from Great Britain. The plaques, platters, vases, ewers and tiles of painted faïence exhibited by this firm were beautiful specimens of vigorous drawing, strong, warm color, and generally fine effects. Some of the figure-paintings and landscapes are simply wonderful when we consider that the artist was limited in his scale of colors to the few, comparatively, that would stand the firing necessary to finish the work. For it must be remembered that Doulton faïence is glazed after the painting, a very different matter from the reverse process, which is about the same thing as painting on glass or any lustrous surface without limitation in the use of color. Undoubtedly, finer chromatic effects can be produced in the latter way, but the articles thus painted must be designed purely for ornament, as they cannot stand much handling or wear. Painting under the glaze, however, if properly executed, will last as long as the clay, on which the colors are laid, holds together. In other words, it is impervious to the action of water or air. On page 428 we illustrate two examples of Doulton faïence, decorated with floral designs, painted directly on the clay. The work shows breadth and skill of drawing and much refinement of coloring. In comparison with the imitation majolica sculptured and painted work, which these wares are rapidly superseding, the artistic value of Doulton faïence is infinitely superior.

We would not, however, be understood, in the foregoing remarks, to condemn majolica as a vehicle for artistic expression. On the contrary, when properly and artistically treated, it gives most satisfactory results. Our criticism is directed against those cheap and meretricious ornaments, mostly sculptured, passing by the name of majolica, that were popular some years ago, because the colors were bright and shiny, and the sculpture more or less novel or grotesque. As an example of a thoroughly good design in majolica and an evidence of its excellence for ornamental purposes when treated in an intelligent manner, we illustrate on page 429 a MAJOLICA ÉPERGNE, exhibited at the Centennial by the MESSRS. DANIELS & SON, OF LONDON, whose display for variety and choice specimens of the potter's art in its several higher branches, stood quite unrivaled. The most noticeable feature in this work, considering its artistic merit, is the modeling of the two figures, the Satyr and Naiad, grouped on either side of the stem of the dish. They are splendid in pose and expression and are perfectly finished, down to the minute details of features, hair, etc. The

skin texture and the coloring are largely dependent on the technical execution and the skill with which the several processes—which the work undergoes after leaving the hands of the artist—are conducted by the workmen. Herein, too,

Silver Tea Sets: Christesen, Copenhagen.

we have evidences of skillful manipulation, and in the brilliancy of the colors as well as in the combination of rare tints we see to what an extent science, in discovering new ceramic pigments, has aided the potter.

The Ornamental Iron Work in the Swedish Court at the Centennial, attracted attention, both by the excellence of the iron itself and the high degree

of artistic skill manifested in working it. Our engraving on page 430 illustrates one of the most notable examples in the display. The design for the centre is bold and spirited, and drawn with a free, vigorous hand. In the execution of the detail the same freedom of touch and avoidance of everything useless and trivial is seen; the work being done apparently as easily as if the material was as soft and yielding as wood.

The CARVED CABINET, illustrated on page 431, is another specimen of the fine display of artistic wood-work made by the Italian Commission in their

Silver Casket: Zimmerman, Hanau.

Court at the Centennial. The purely classic outline of this beautiful piece of furniture and the elegance of the ornamentation recommend it at once to the admirer of fine cabinet work. The cabinet may be described as consisting of two parts, the lower divided into the three principal panels, each of them ornamented with carving in low relief. In the central panel is a charmingly posed draped female figure, representing the Genius of Poetry. On to her shoulder has just flown a little cupid, and, poised there, he appears to be whispering an inspiration in her ear. Framing this group are smaller panels ornamented by delicately carved scrolls and garlands. The principal ornamentation in the side panels are medallions, with finely carved busts executed in low relief. In the central portion of the upper half of the Cabinet is a large sheet of glass,

placed there to expose to view the ornaments within, which it protects. On either side are splendid specimens of carving, representing ornamental niches or recesses in which stand statues typical of music and painting. The upper part of the Cabinet is ornamented with a frieze, bearing an escutcheon for arms, and the top is finished with an arch broken in the centre, to give place to a vase and pedestal.

Silver Perfume-Box: Ritter & Co., Hanau.

On page 432 is an engraving of another charming work, a BRONZE JARDINIÈRE, from the collection exhibited by M. LUTON, OF PARIS. The vase itself is in the shape of an ancient cistern, ornamented with panels, enriched with scroll-work and medallion heads in relief. A happy conceit has placed two winged cupids on either side of the vessel, binding it about with a garland of laurel. The pose of these little figures is graceful and spirited, the very embodiment of glee. In technical execution the finish of this work leaves nothing to be desired.

In the SCOTCH CARPET, made by JAMES TEMPLETON & CO., OF GLASGOW, illustrated on page 433, we see the influence of that French taste formed in the splendid schools of decorative and ornamental design established by Corbet—the Gobelins and Sèvres—which swept like a wave over Europe and into England. The love of magnificence and display in which one Louis exceeded another was ministered to in these great factories by every art that the ingenuity of man could devise and money purchase. The people, attracted by the glitter and brilliancy of the age, threw aside the simple forms of the Renaissance and of classic antiquity, and sought to imitate in their humbler abodes the splendor of the court. Manufacturers caught the infection and strove to excel each other in the production of novelties that should surpass, in richness of design or elaborateness of ornament, anything previously produced. The style named after

Louis Quartorze is perhaps the highest expression of this new order of things. Never before had the mere enrichment of articles been carried to such an excess, and since that time various causes have contributed to its abandonment. The influence of the Gobelins on designs for textiles was especially marked, and in the foliated scroll-work, the bouquets of flowers, medallions with portraits, trophies, musical instruments, etc., and the pictorial treatment of carpet patterns so common in all parts of the world to-day, we can trace this influence.

In the example before us, which doubtless is an original design, the designer has caught the true French feeling, and giving loose to his fancy, has decorated the material with lavish richness. The middle ground of his carpet is strewn with a delicate tracery of flower-sprays interwoven with foliated scrolls. Within the border, which is as strongly outlined as the cornice around a ceiling, are garlands and heaps of flowers; and about the outer edge, like a fringe, is a rope of ivy. Midway of the sides are medallions wreathed with flowers, containing groups of musical instruments. The reader can see for himself the varied richness of these several combinations of design which literally strew flowers before one's feet.

The novel forms and the original styles of ornamentation displayed in the goldsmith- and silversmith-work of Denmark, made the Danish exhibit of art-work in the precious metals unusually interesting. On page 435 we engrave, as notable examples of this silversmith-work, two Tea Sets, made by Christesen, of Copenhagen. The ornamentation of the articles in the first group is of very varied character. The water-urn, engraved with classical figures and modeled in swelling curves, is balanced between a pair of Sphynxes, drawn with all the severity of outline of the Egyptian originals. A swan forms the knob to the lid of the vessel, and is matched by similar devices in the other pieces. Indeed, wherever there is a point or angle, a mask or grotesque head, or something of that kind, is placed there as a finish to the work. The same general remarks apply to the second service, though the enrichment of this set is even more elaborate than the former. The pattern on the sides of the vessel is different, bands and scroll-work being selected instead of figure-subjects.

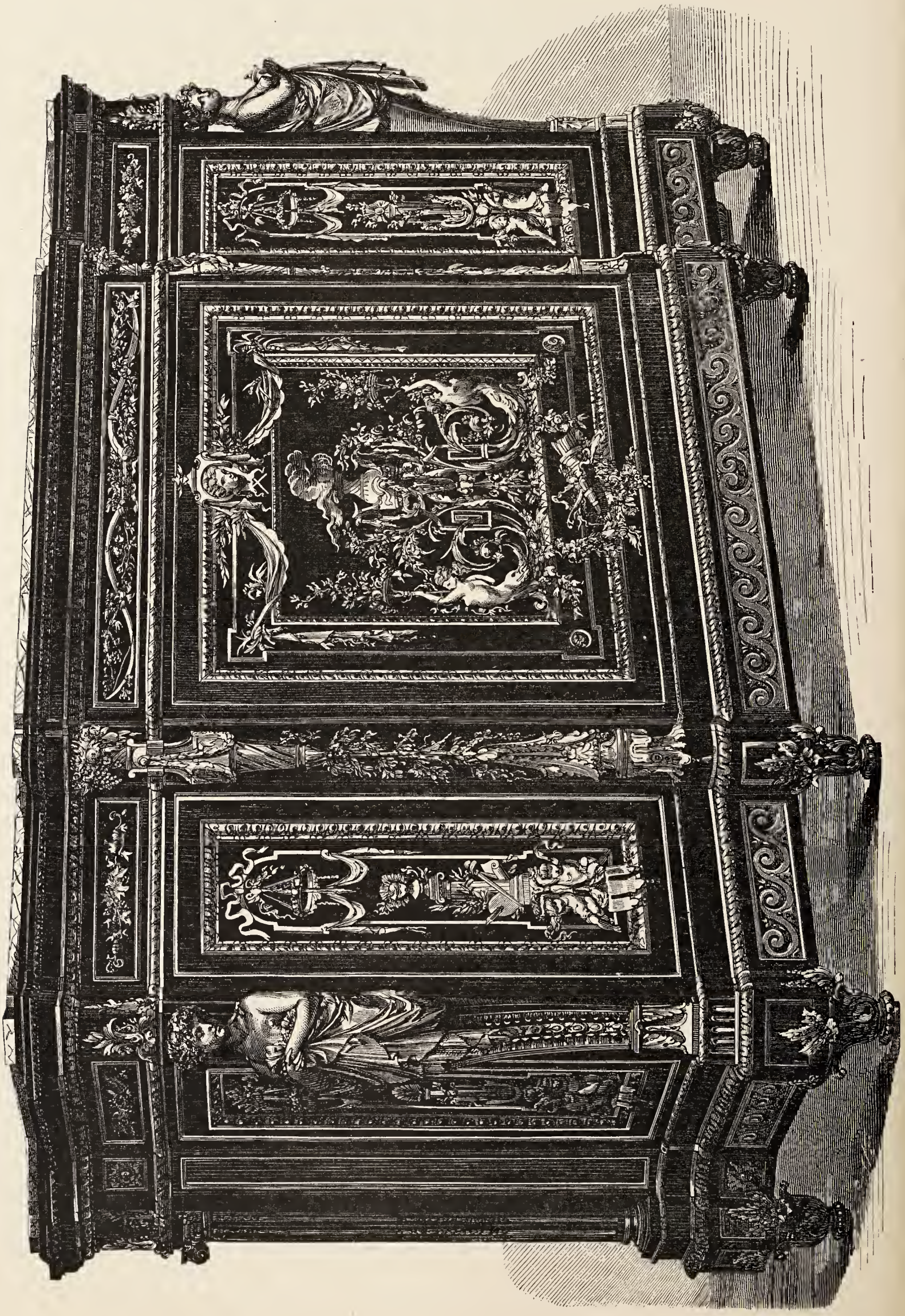
Some of the most interesting art-workmanship in the German section of the Exhibition came from Hanau, in Hessen-Nassau. Although the population

of the town, including the suburbs, is not more than fifteen thousand, it has manufactories of silk stuffs, carpet, cotton fabrics and other textiles, gold and silver articles, and porcelain, which are second to but few in the empire for the quality and artistic excellence of the work produced. A reason for this excellence can be found in the admirable schools of art-education which have long been established here, supplying trained and accomplished workmen in the several art-industries.

On page 436 we illustrate, as an example of HANAU silversmith-work, the top of a SILVER CASKET, made by ZIMMERMAN, of that place. The design is graceful and pretty, and not over elaborate. The central panel is particularly excellent for its well-balanced figure. But aside from the skill evinced in the design, the casket deserves attention for the fine and workmanlike manner in which it is made, showing a skillful use of the hammer, the chisel and the graver's tool.

On page 437 we engrave another example of HANAU silversmith-work, the subject—a SILVER PERFUME-BOX—being one selected from the exhibit made by RITTER & CO., of that town. In shape, in decorative and ornamental treatment and in workmanship, this dainty little object is worthy of great praise. The reader should observe how each detail of the enrichment contributes to the harmony and completeness of the object as a whole, and how perfectly the several parts of the work are proportioned. It is an object that fills and satisfies the eye at the first glance, and invites a more careful examination of its elaborate excellencies. Each part can be studied separately: the lid of the box, with its admirably grouped swans; the simple yet elegant bands surrounding the body of the vessel; the charming little figures who make merry with the cap and bells of Mirth and the mask of Tragedy; the vigorous modeling of the lions' heads, bound by the jaws around the stem, and the plain ornamentation of the foot, conveying a sense of strength by its very simplicity and precision of outline.

With the peace that followed the departure of the French from Italy about the beginning of the sixteenth century, came the opportunity for the development of the Renaissance art. Its study was entered into with enthusiasm, and received the encouragement and patronage of the princes of the land. The search for classical remains brought to light many superb examples on which



Carved Walnut Cabinet: Italian Court.

Glass Vase and Épergne: Lobmeyr, Vienna.

the styles were founded. The carved furniture and wood-work of this period have never been excelled. The best artists of the day were not unwilling to exercise their skill in this direction, and the exquisitely ornamented chests and sculptured panels of the cinque cento preserved in the museums and palaces of Europe attest to this day the surpassing skill of the workmen.

In early mediæval or Gothic art there was a certain conventionality in the convolutions of foliated sculpture and other ornamental work adorning furniture, which was afterwards absorbed in the more purely architectural types that obtained in the quatro cento, or fifteenth century, period. In the best period of the Renaissance it does not appear at all; but later, when what should have remained purely architectural features were imparted to furniture, making cabinets like mimic temples, etc., which required joinery construction otherwise useless and unnecessary in such articles, the mediæval ornamentation was revived and grafted on to arabesque ornament, which in

Furniture Silk; Collective Exhibit of Saxony.

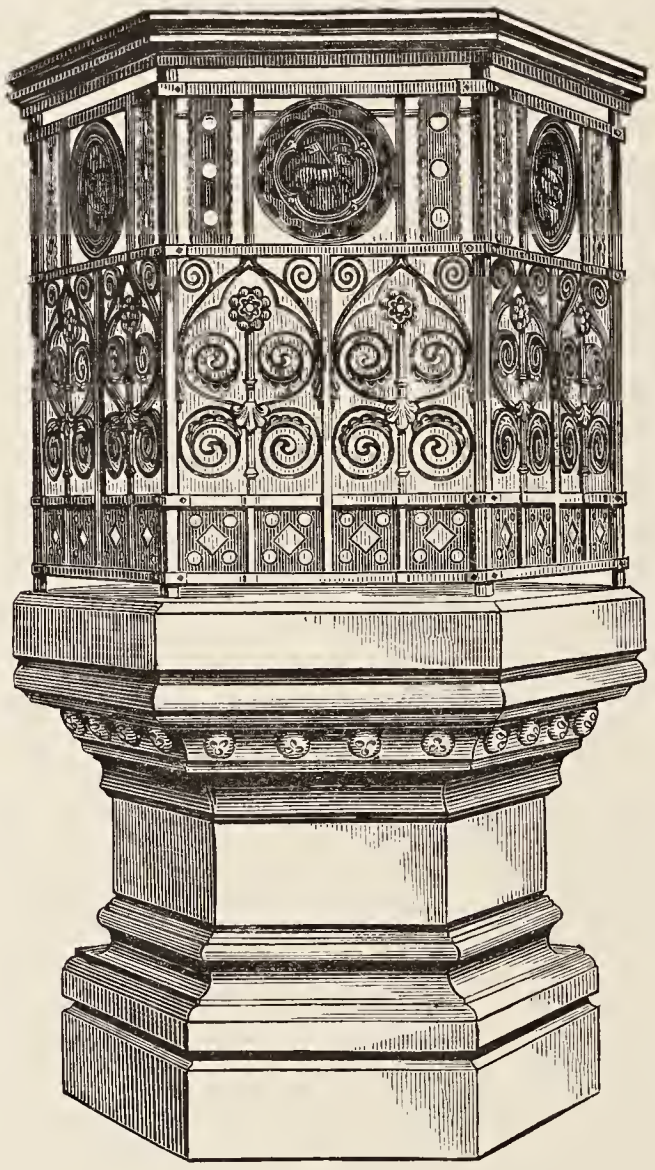
turn surpassed all previous styles in the richness and variety, if not in the excellence, of its designs. Still later, when the decadence of art is most manifest, we find the several styles hopelessly confused, and articles of furniture in which the designer's principal aim seems to have been to get as much and as many varieties of ornament into a given space as his ingenuity could devise. To any one familiar with the vigorous simplicity of the early Gothic ornamentation, where every line is traceable through the intricacies of its convolutions as having a definite end and purpose, the lavish enrichment merely for the sake of enrichment looks poor indeed.

Cut-Glass Decanter: James Millar & Co., Edinburgh.

Of late years, however, Italy, like the rest of Europe, has experienced another art-revival, and is seeking, by intelligent study of the best examples, to restore her art-workmanship to its former purity and excellence. To how well she is succeeding in this endeavor, the excellent exhibit made by her artists in manufactures in the Italian Court at the Centennial bore ample testimony. In no one department of industrial art was this more apparent than in that of wood-carving. The examples sent were many of them simply superb works of sculpture. Our readers already are familiar with a number of the choicest specimens, to which list must now be added the CARVED WALNUT CABINET, illustrated on page 440.

The front of this cabinet consists of three panels, separated by columns

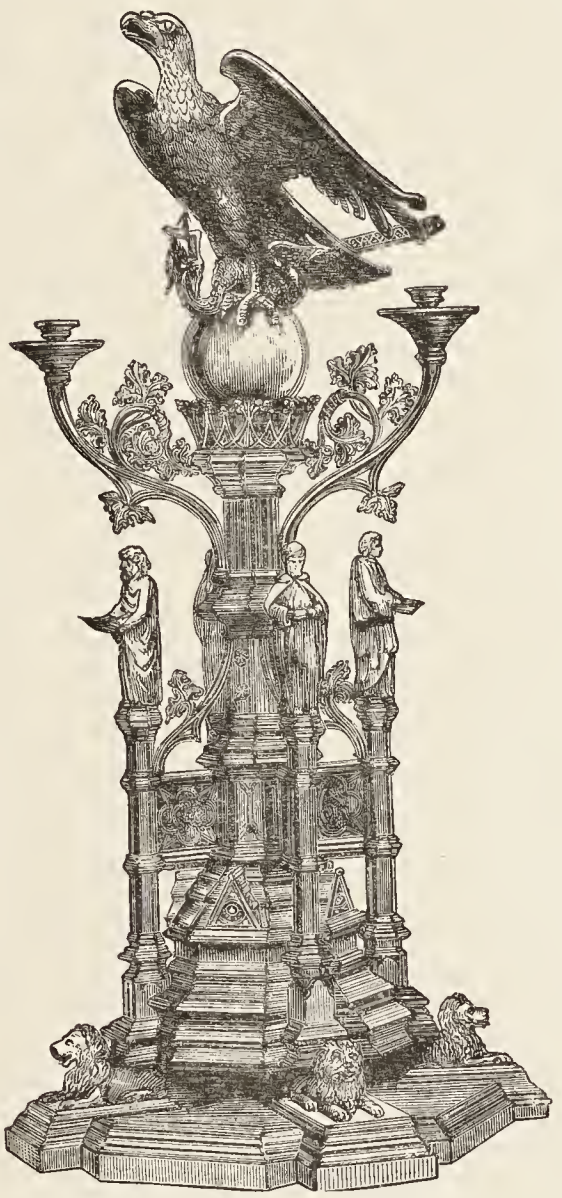
wreathed with vines carved in full relief. The panels are enriched with designs of great elaborateness and beauty, containing cupids, trophies, scrolls, and urns in harmonious composition. In the frieze above the panels are sprays of vine-leaves exquisitely exact in their resemblance to nature. A curvilinear design, some four inches broad, is carved around the base of the cabinet, on the front and sides. At the two outer corners are caryatides, executed with a breadth and freedom rarely attained in wood-sculpture. In the ends are panels similar in design to those in the front. About the feet, at the corners of the frieze, and at every point of prominence in the construction of this superb piece of furniture, are carvings in higher or lower relief, and of greater or lesser degree of elaborateness, according to position.



Pulpit: Hart, Son & Peard, London.

The art of blowing glass, brought by the Venetians to the highest state of perfection, was known to the Egyptians and Phœnicians, and extensively practised by the Romans. Indeed, the countless fragments of Roman glass that are found show that these last-named were acquainted with most of the methods known to modern manufacturers, and some of their work, as, for example, mosaic or *mille fiori*, has never been surpassed. Whether the famous murrhine wine-cups, believed to have the faculty of breaking if poison was mixed with the drink, were made of glass or from some mineral, like fluor-spar, has never been determined; but there is no reason to doubt the statements of Latin writers describing columns of glass of ten and fifteen feet in height. The beautiful iridescent glass so common in ancient fragments, and so beautifully imitated in modern times, is simply the result of decomposition of the surface.

With the Venetians, however, the art of glass-making was elaborated into numberless processes, many of which, in their details by which such surprisingly beautiful designs were obtained, are now unknown to us. Perhaps the chief beauty of Venetian glass to the art-lover is the appreciation manifested by the workmen of the true quality of the material which he manipulated. Worked in a fused or liquid state, the compound hardens by cooling into a brittle, non-crystalline substance. By blowing, a marvelous degree of tenuity can be obtained, and by the use of metallic oxides the substance can be colored. Vitreous enamels can be fastened to the surface, or threads of color be incorporated in the substance. In all these methods of ornamentation, the true nature of glass is regarded, and it is only in more modern times that the attempt to cut it in imitation of crystal has been resorted to.



Eagle Lectern: Hart, Son & Peard, London.

In the collection of Ornamental Glass, exhibited by M. Lobmeyr, of Vienna, at the Centennial, the visitor was treated to a view of a perfect museum of specimens of this beautiful art, including examples imitating ancient wares, and illustrations of new processes discovered—or perhaps we should be nearer the truth if we said old processes rediscovered by the manufacturer. The famous ruby glass of Potsdam was rivaled in richness by the splendid examples of color shown by M. Lobmeyr. His enamels were particularly brilliant, and his iridescent glass radiates from its surface all the colors of the rainbow. Wonderful skill was also shown in the exquisite designs either engraved by the wheel or eaten in with acid. Some of these engravings were on glass so thin that the marvel was how it resisted the pressure necessary to chase the surface. Another variety was gorgeous in enamels and gilding and embossed surfaces, and it is from this class that we have selected the two pieces, a Vase and an Épergne, illustrated on page 441.

They are resplendent in the rich ruby color spoken of above, and as ornaments to a drawing-room or dinner-table could hardly be surpassed in effectiveness.

Lace Curtain: Heyman & Alexander, Nottingham.

On page 442 we engrave an example of FURNITURE SILK, from SAXONY, selected from the Collective Exhibit of textiles made by that nation at the Centennial—a collection, by the way, in every respect creditable, and particularly evidencing the artistic skill of the Saxon artisans. The specimen shown in our illustration treats a well-known method of design with vigor and grace, and in the blending of color, which cannot be shown in an engraving, a most harmonious effect has been obtained.

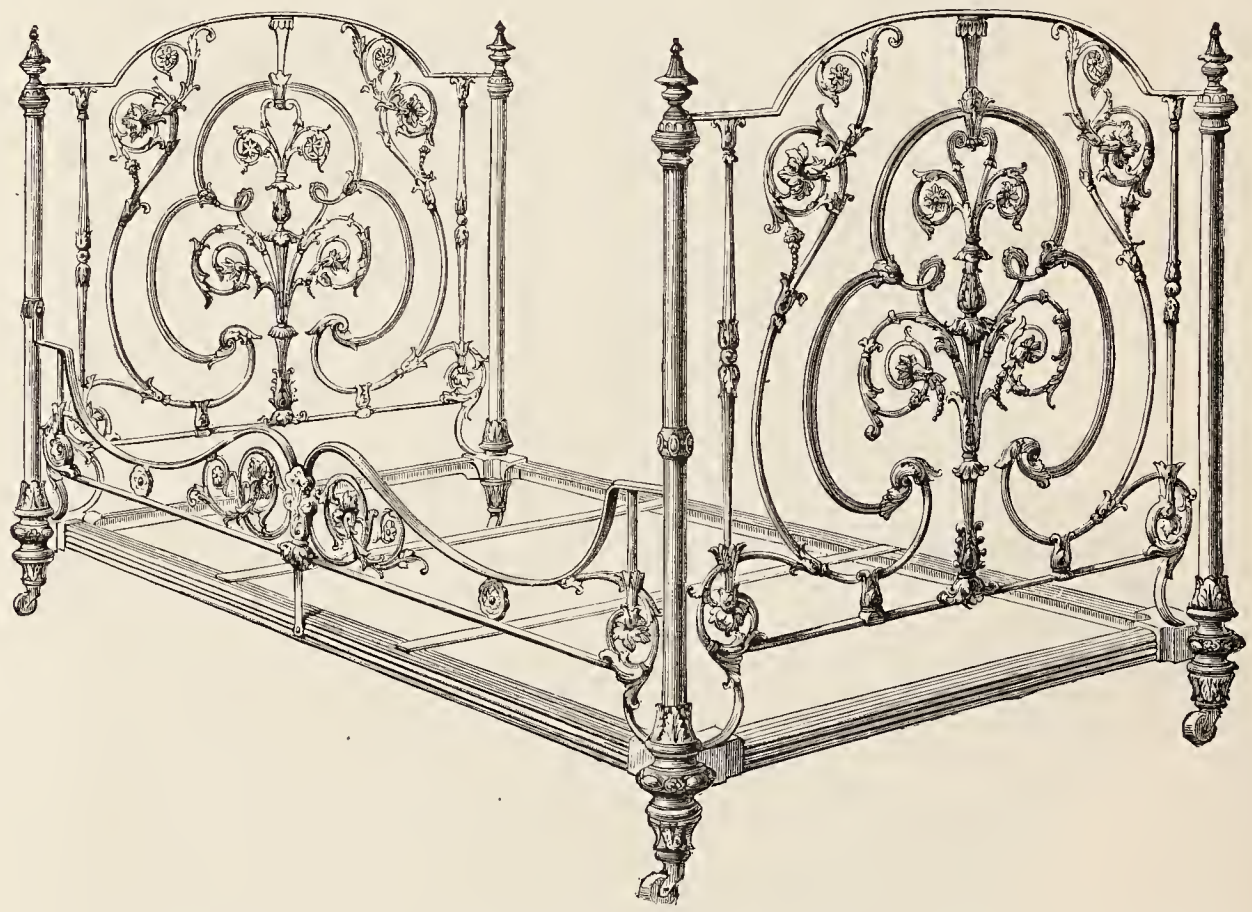
The CUT-GLASS DECANTER, illustrated on page 443, is selected from the fine exhibit of glassware made by JAMES MILLAR & CO., OF EDINBURGH, in the English Court at the Centennial. Scotch glass is famous for its quality, and Scotch crystal glass especially has great clearness and brilliancy. The engraving with which it is decorated heightens this effect by contrast with the clear portions of the surface, and the angles produced by

cutting increase the brilliancy. The form of the Decanter illustrated is particularly graceful and well proportioned.

Lace Shawl: Collective Exhibit of Brussels.

If any one desired a practical illustration of the results of industrial-art education in England, they had it in full measure at the Centennial Exhibition,

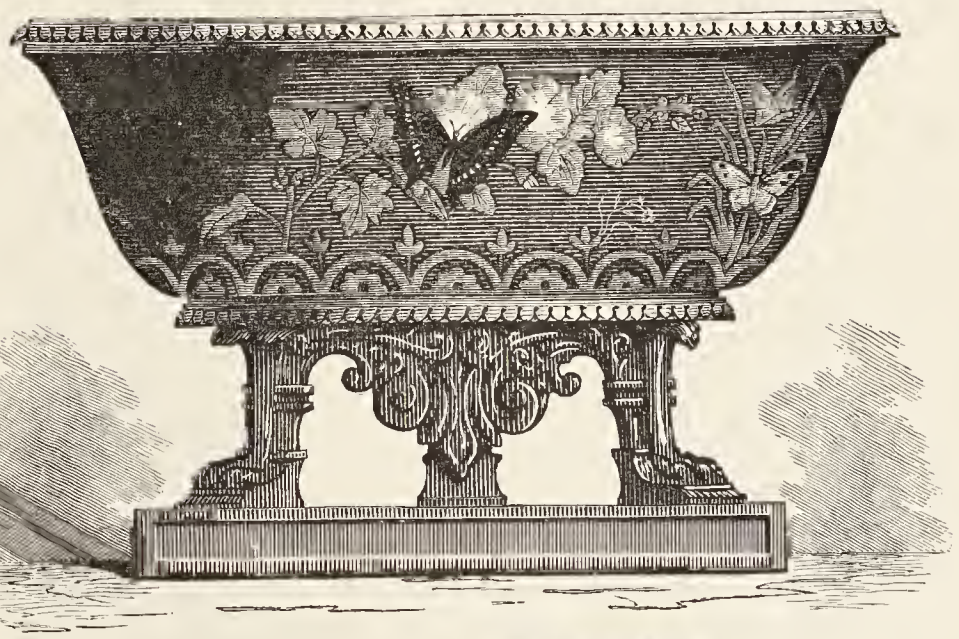
In the Paris Exposition England surprised the world by coming suddenly to the fore among the nations of Europe with her exhibit of decorative and ornamental workmanship, and again at Vienna she won renown; but her best achievements in these lines, taking the exhibit as a whole, were seen at the Centennial. Our pages have already been enriched with illustrations of the triumphs of English manufactures in artistic pottery, glass, metal-work, textiles, paper-hangings, and furniture, all traceable directly or indirectly to the influence



Iron Bedstead: Peyton & Peyton, London.

of South Kensington with its superb museum and its admirable training-schools. Another example, showing in every line and detail of construction and enrichment the result of this education, is shown in the PULPIT manufactured by HART, SON & PEARD, OF LONDON, which we engrave on page 444. Simple in outline, admirably proportioned, the ornament in harmony with the general design and admirably wrought, nothing superfluous or weak in the enrichment, these are among the characteristics of this excellent work.

The EAGLE LECTERN, of which we give an illustration on page 445, is a notably fine example of the artistic and highly finished ecclesiastical furniture which the MESSRS. HART, SON & PEARD make a specialty of manufac-



Sèvres Vases : French Court.

turing. This Lectern is made of wrought metals, brass and iron, chased and engraved, and in artistic design and workmanlike execution and finish it reflected the highest credit upon the manufacturers. The brass eagle standing with outspread wings upon a globe, and crushing in its talons a writhing serpent, is the most conspicuous feature of the design. The pose of the bird and the position of its wings are arranged to make a convenient book-rest for the reader at the lectern. Springing from near the top of the shaft that supports the sphere and eagle are branching candle-stands of graceful foliated design. The small columns surrounding the central shaft are surmounted by figures of the four Evangelists, admirably conceived and executed. At the base of the columns are couchant lions, facing outwards, vigorously modeled and instinct with life. Devices of an ecclesiastical character are introduced into the enrichment of the panels and detail-work of the construction, and add to the ornamental effect of the whole.

Bronze Candelabra: Luton, Paris.

The excellence of the Lace Fabrics made by MESSRS. HEYMAN & ALEXANDER, OF NOTTINGHAM, ENGLAND, and exhibited at the Centennial, worthily maintained the reputation of that town for its famous "Nottingham Lace." On page 446 we engrave one of the specimens exhibited by the above-named firm, a LACE CURTAIN of a charmingly light and graceful design, prettily and tastefully disposed over the surface of the net-work in which it is wrought. There is a suggestion of the Pompeiian style of decoration in the vases and in the groups of conventionally treated flowers and ferns rising one above the other in graceful convolutions; and these are happily

harmonized with the lattice-work border about which flower-garlands and vines are wreathed and interwoven.

In contrast with this strong and serviceable fabric is the delicate, web-like LACE SHAWL, illustrated on page 447, which was one of the many superb examples of this kind displayed in the Collective Exhibit of Brussels. Mrs. Pallisser, in her introduction to the Lace Catalogue of the South Kensington Museum, gives an interesting account of this industry. She says of Brussels lace that it is the most celebrated of all manufactures, distinguished for the beauty of its ground, the perfection of its flowers, and the elegance of its patterns. The thread is of extraordinary fineness, made of the flax of Brabant. It is spun underground, for contact with the air causes it to break, being so fine as almost to escape the sight,—the lace-spinner is guided only by touch. Hand-spun thread costs sometimes as high as £240 per pound, and is consequently now but little used, a Scotch cotton thread being substituted, except for the finest lace; but machine-made thread has never arrived at the fineness of that made by hand.

Bronze Lamp: Luton, Paris.

The ground used in Brussels lace is of two kinds—needle-point, "point à l'aiguelle," and pillow. The needle-point is made in small segments of an inch wide, and united by the invisible stitch called "fine joining." It is stronger, but three times more expensive, than the pillow, and is rarely used except for royal orders. In the pillow-made ground two sides of the hexagonal mesh are formed by four threads plaited, and the other four by threads twisted together; but these beautiful and costly grounds are now, for ordinary purposes, replaced by the fine machine-made net, so well known under the name

of "Brussels net." The Brussels flowers are of two kinds—those made with the needle, "point à l'aiguelle," and those on the pillow, called "point plat." Both are made distinct from the grounds. In the old Brussels lace the flowers were worked into the ground; the pillow-made, or "Brussels plat," are sewn on or "applied." The "modes" or "fillings" of Brussels lace are peculiarly beautiful, and it is also celebrated for the perfection of the relief or cordonnet which surrounds the flowers. The making of this exquisite lace is so complicated that each process is assigned to a separate hand, who works only at her own department, knowing nothing of the general effect to be produced by the whole, the sole responsibility of which rests with the head of the establishment.

Furniture Silk: Collective Exhibit of Saxony.

Examples of all these marvelous fabrics were shown in the Centennial collection in the Belgian Court, as well as specimens from other Flemish schools. Some of these pieces were of great size, as this shawl, for instance, and others, especially in the costliest fabrics, were shown in collars, cuffs, fan-trimming, etc. In many instances, the use of a powerful magnifying-glass was necessary to distinguish the minute intricacies of the design.

The IRON BEDSTEAD, illustrated on page 448, is another example of the excellent ornamental metal-work exhibited in the English Court at the Centennial. This bedstead was manufactured by MESSRS. PEYTON & PEYTON, OF LONDON, and

illustrates a method of workmanship too little practised in this country. It is of wrought iron, and consequently all the light and graceful scroll ornamentation seen in the engraving, although lighter and more open than the like style of metal-work common in this country, is incomparably stronger than that, because the latter is cast iron, one of the very worst mediums for ornamental purposes. Everybody knows how common it is to see, in any of our cities, fence-railings and step balustrades like this bedstead in ornamental design, with unsightly holes and gaps in places where they have been struck, and

Loiret Faïence: French Court.

frequently a very slight blow is sufficient to make the damage. The trouble is that these elaborate designs had been cast and not wrought, and the metal in casting had acquired a weak, brittle quality. Wrought iron will bend, but it will not break under a blow, and therefore this bedstead, weak as it looks to people familiar only with its cast-iron counterparts, will stand any amount of rough handling, and if it does get battered out of shape it can always be hammered back again to its original proportions. We trust that the day is not far distant when this noble branch of metal-working will receive the attention it deserves in this country.

The porcelain of Sèvres, its *pâte tendre* and *pâte dure*, is famous the world

over, the former especially as the most beautiful and precious porcelain ever produced. The manufacture of this difficult and costly composition was discontinued in the beginning of this century, and to-day specimens of Sèvres *pâte tendre* are the most valued of ceramic wares. A set of three jardinières, of this *fabrique*, was sold a few years ago at auction, in London, for £10,000!

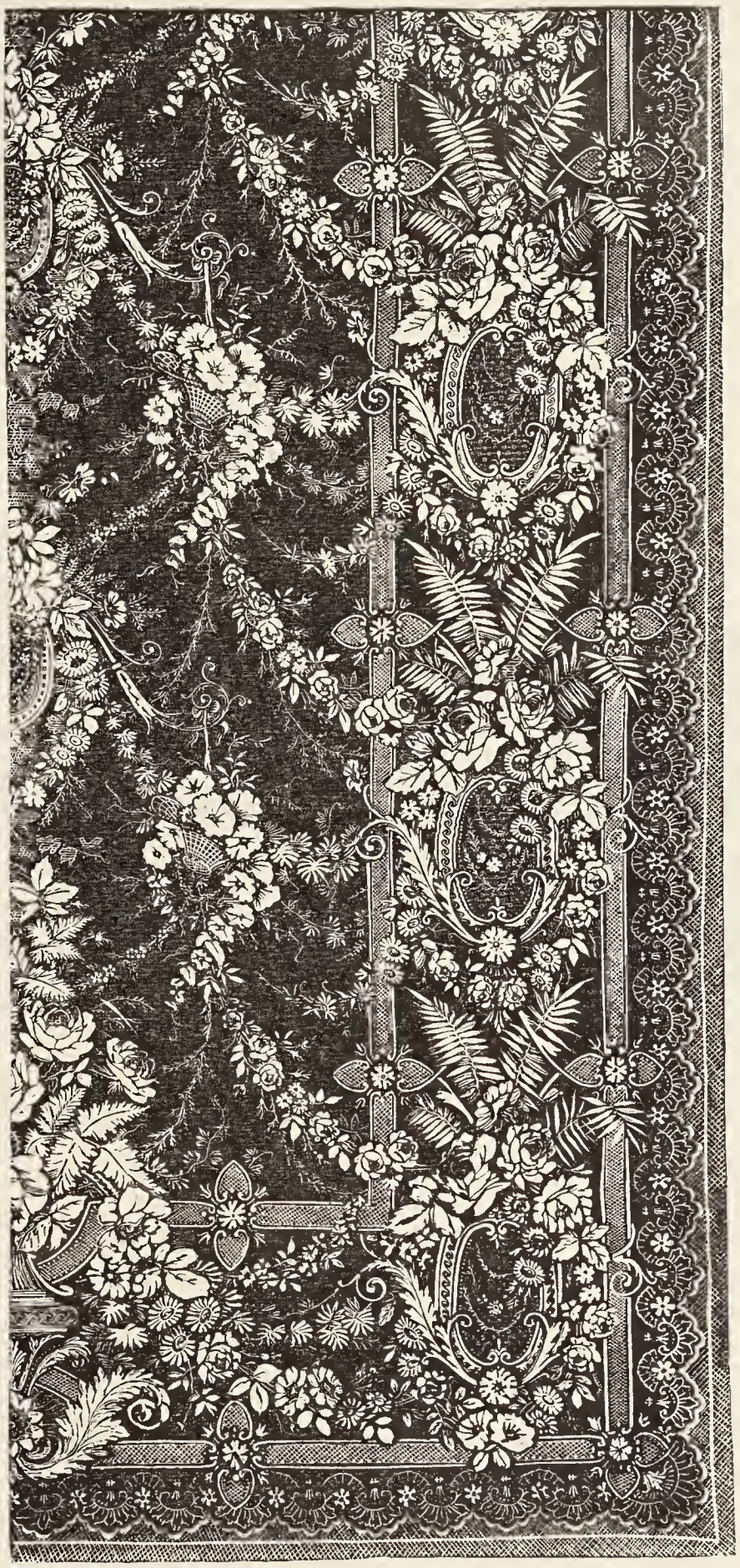
Sèvres *pâte dure*, or hard paste, has not the same qualities for artistic enrichment that the soft paste possessed, and it is much more easily made; nevertheless, some of the *chefs d'œuvre* of the potter's art are in this material. The

Furniture Silk: Spanish Court.

Centennial Exhibition was fortunate in having a collection of specimens of these two kinds of Sèvres ware entrusted to the French Commission for exhibition only. They were arranged in Memorial Hall in various parts of the building, where they attracted universal attention. Our illustration on page 449 gives a group of six of these pieces, showing their form and the style of decoration; but the pen can no more than the pencil convey the marvelous color effects, a depth and richness not otherwise attainable in art, possessed by the *pâte tendre* examples.

Two examples of the artistic bronzes of LUTON, OF PARIS—a BRONZE LAMP and a BRONZE CANDELABRUM—are illustrated on page 450 and 451. The first of these has some very fine *repoussé*-work around the bowl

which contains the oil, and is mounted on a stand or tripod of classical design and graceful form. The candelabrum is particularly graceful, the severity of the outline being relieved by the pendant chains connecting the brackets with the central stem, which rests upon a richly ornamented base.



Lace Curtain: M. Jacoby & Co., Nottingham.

The specimen of FURNITURE SILK, from the Collective Exhibit of SAXONY, illustrated on page 452, is noteworthy for the richness of its design. Here, as in many previous instances that we have noted, the old Pompeiian style of arranging vases, garlands, bouquets, trophies, and other figures in groups, one above the other in a connected sequence, is seen in the designer's disposition of this pattern. In the little oblong panels at the upper and lower end of the strip of silk, a bit of figure-drawing has been introduced in the combat of goats. Only an exuberant fancy could have suggested anything so novel as this is in connection with the other portions of the design.

The elegance and elaborate richness of the Loiret Faïence is well illustrated in the two examples engraved on page 453, from the Collective Exhibit in the French Court. They are essentially objects of ornament, and the artist and designer have free scope for their fancy in making them as rich and pleasing to the eye as may be. The modeling of these vases is very vigorous, and the decoration is rich, varied and spirited. There is charming figure-painting, too, of little loves and nymphs, in the broad zones around the bowls, that should not escape the observer's attention, as the drawing and composition are excellent.

The Furniture Silk, shown on page 454—an example of Spanish design,

Cameos: Starr & Marcus, New York.

from the Collective Exhibit of Spain—is one of the most graceful and effective realistic treatments of plant-life that was to be seen in the whole range of textile designs at the Centennial. A close examination will show that the drawing is not realistic as a whole, the pattern being made up of repetitions of the same series of groups, which in themselves closely imitate nature; yet so cleverly are these combined that the general effect is that of a climbing or running vine, its branches and tendrils shooting off with the methodical irregularity of the living plant.

Another example of English Lace, this time taken from the exhibit of M. Jacoby & Co., of Nottingham, is engraved on page 455. This too is a Lace Curtain, decorated with flowers and ferns gracefully arranged in festoons and garlands and groups. The treatment of each separate flower and leaf and fern spray is realistic to a minute degree, but here the imitation of nature

ceases, the designer having disposed of them in harmonious interweavings so as to cover a surface of a given shape and size to the most advantage. A richly-wrought border with medallions and an edging containing a neat and unobtrusive running pattern complete this elaborate piece of work.

Three examples of the superb collection of CAMEOS, exhibited by STARR & MARCUS, OF NEW YORK, are engraved on page 456. These exquisite works of art, more precious in the estimation of many than gems, because their art-excellence cannot be counterfeited, were among the most attractive features of the display of articles coming within the province of the jewelers. In cut cameos the New York exhibit was decidedly the finest in the Exhibition, though the French Court contained several choice specimens.

The part played by the love of decoration in the development of civilization is much greater than persons who have given the subject no attention imagine; and it is no idle fancy that has given the diamond the first place among decorative objects. It is the most perfectly beautiful gem produced by nature. It has been happily described as embodied light. So far, if we except the minute particles claimed as diamonds produced by some European chemists, it has defied all efforts of man to reproduce it, although it has been closely imitated. Experiments to discover its nature and composition were begun long ago. About one hundred years since, a certain French jeweler denied that a diamond would burn, and in his confidence placed a magnificent jewel in coal in a crucible. In three hours it had disappeared. Had he known enough to enclose the stone from the air, he might have heated it as hot as he chose without injury to the gem. Indeed, diamonds are sometimes increased in brilliancy by this process; but it is not an experiment we would advise any of our amateur readers to attempt. How the diamond comes into existence is a much more interesting question than how it may be destroyed; but though there are many theories on the subject, nothing is positively determined as yet.

The largest diamonds in existence are thought to be the Braganza, in the crown of Portugal, and the Borneo gem, belonging to the Rajah of Mattan. Mr. Streeter, in his book on "Precious Stones and Gems," states that the Braganza weighs 1680 carats, and if it is genuine, about which there seems to be some doubt, it is worth nearly £60,000,000; at least these are the printed figures. The Borneo diamond has been the occasion of many battles, and at

Silver Fairy Table. Elkington & Co., Birmingham.

one time two men-of-war and £150,000 were offered for it by a governor of Batavia, but the Rajah regards it as a talisman, and will not sell it. It is said to weigh 367 carats. It must be remembered that a diamond before it is cut and after it is cut is a very different thing; and the advantages of cutting are

Silver Fairy Plaque (Top): Elkington & Co., Birmingham.

not always very plain. Competent judges are of the opinion that the Koh-i-noor has not been increased in brilliancy to an extent sufficient to make up for the loss in weight by cutting. When this famous diamond was brought to England it weighed 186 carats, but it has since been ground down to nearly half that weight. It is believed that at some remote date this gem weighed within a fraction of 800 carats. Had the possessors of this marvelous jewel been

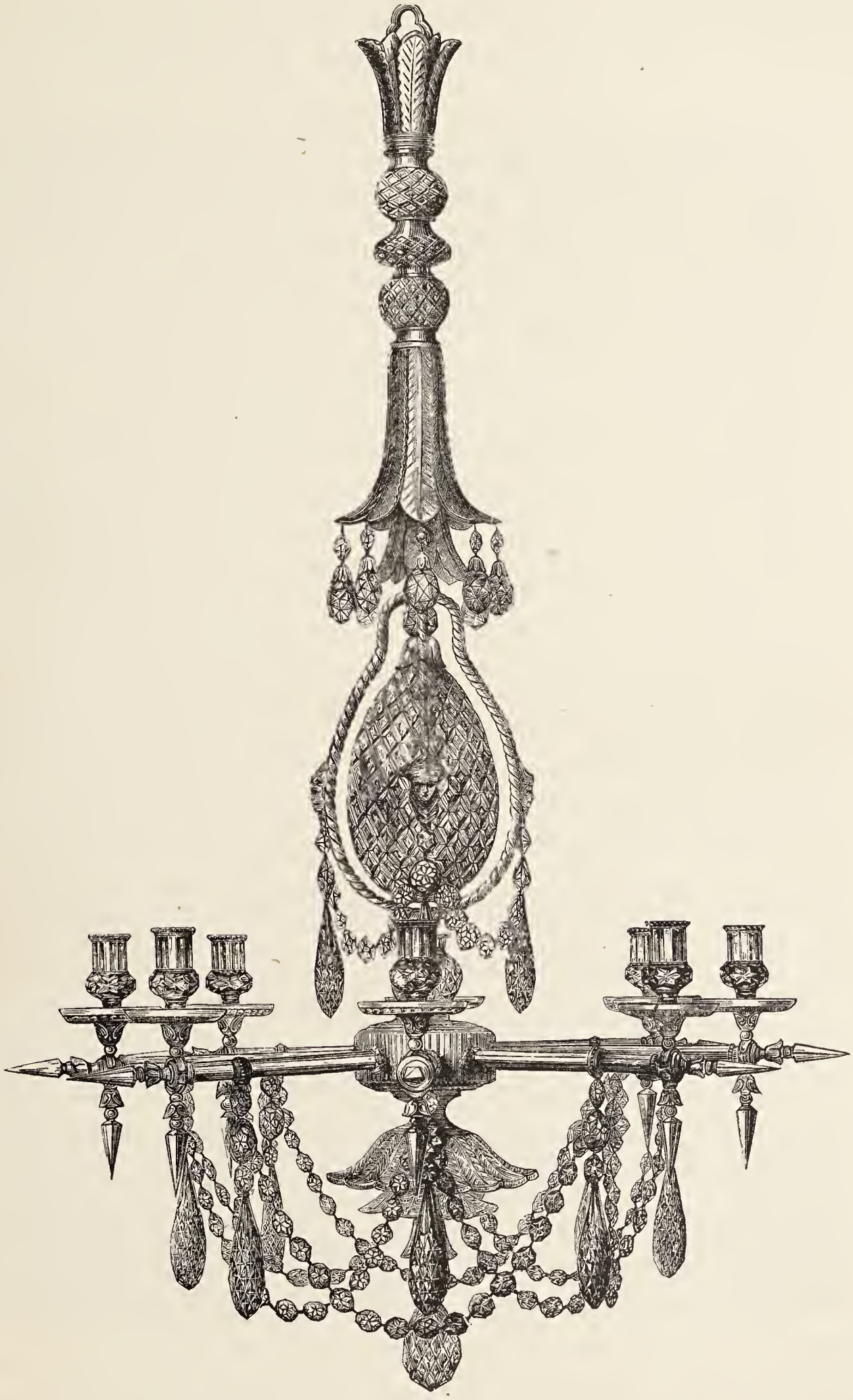
content with its natural irregularity of outline, this enormous sacrifice of weight and value to secure regularity and symmetry would not have been made.

In some cases, however, diamonds gain largely in worth by cutting, and this is especially the case with the smaller stones. No one who looked upon the glittering array of facetted brilliants exhibited by STARR & MARCUS, OF NEW YORK, in their Court at the Centennial, could regret the cutting and polishing

French Pottery: French Court.

processes that resulted in the production of these superb jewels. In the examples of DIAMOND JEWELRY from the exhibit made by this firm, which we illustrate on page 456, no one can be blind to the beauty of the royal stone, transfigured by the cunning art of the lapidary into the most sparkling brilliant.

Among the many and important works of art metal-work exhibited by the MESSRS. ELKINGTON & CO., OF BIRMINGHAM, at the Centennial Exhibition, the SILVER FAIRY TABLE, illustrated on page 458, held a prominent place, both on account of its beautiful design and exquisite workmanship. The general form



Crystal Chandelier: James Green & Nephew, London.

of this beautiful ornament is a circular top with a raised and embossed border, supported by a baluster-shaped shaft upon a three-footed base. The entire surface of the table within the bounds of the circular border is enriched with a charming composition representing a procession of fairies and cupids. There are more than twenty figures in this group, each one of which is a model of graceful spirit and design. Not the least meritorious part of the work is the admirable harmony of outline that the artist has secured in the flowing drapery and sweeping curves of the limbs of his figures. The whole of this design is a model of happy invention and artistic skill. From the centre of the table-top rises a fairy statuette, modeled with rare grace and symmetry. The shaft of the table is covered with low relief ornamentation of a floral character. Seated about the base of the stand are three figures—a troubadour, a knight-errant and a page—which are wrought in an exceedingly graceful and spirited manner. The pose of each is admirable, and the artist has invested them with an individuality rarely equaled in compositions of this kind.

On page 460 we illustrate a group of FRENCH POTTERY—porcelain and faïence—which have features of special excellence. The vase on the left hand is one of the Sèvres collection, to which reference has been already made, and is a beautiful illustration of the artistic and technical excellence of the products of the famous Sèvres factory. The upper portion of the vase is decorated with a sacrificial scene, such as is often found illustrated on classical vessels and in the frescoes of rooms. The drawing of the figures is very delicate and subtle. The body of the vessel is enriched with a species of ornament which, when judiciously employed, gives very rich effects. This ornament consists of a series of twisted ovolo mouldings, which, springing from a common centre at the base of the vase, wind up around the bowl. These ovolos are of a rich turquoise blue color, with gold stars and fern patterns gilded upon the surface. The same rich color forms a ground for the decoration about the stem of the vase. Around the edge of the base is a scroll design made up of beautiful curves interwoven in a fanciful pattern of peculiar beauty.

The middle object of the group is in the shape of one of those shallow cups having an enriched stem which were commonly made during the sixteenth century as decorative articles of luxury, and called Presentoirs. This vessel, it is true, has a cover, which Presentoirs had not, but in all other respects it has

the characteristics of those articles. It is enriched with enamel-painting after the style of Limoges, a town in the south of France, which was particularly

Carpet: Tompkinson & Adams, Kidderminster.

distinguished during the twelfth century for the beauty of its enamel-work. One of its peculiarities was the adoption of a transparent color, usually blue,

enriched by small transparent globules on silver spangles, which gave a gem-like appearance to the work. The application of this style of enamei to a porcelain surface gives wonderfully rich and beautiful effects, but the process is one of such extreme difficulty that perfect work is rarely attained.

The third figure of the group is one of the charming faïence vases exhibited by Haviland, of Limoges, and painted in a style to which he has given the name of the town. The artistic excellence of this work is so great that it is not impossible that the Limoges faïence will have an art influence on our times comparable with the influence of the Limoges enamels, which we have spoken of above, on the fashions of their day. The characteristics of the Haviland artistic faïence are an extraordinary breadth and vigor of drawing, and effective if not always harmonious color qualities. The clay of which these vessels are composed is of a coarse quality, but of a nature well adapted to decorative treatments. The forms of the objects are almost always good and of simple, severe outline, which we would not look for among a people who are so fond of rich, voluptuous curves and elaborate ornamentation.

Although the glass-workers of Bohemia are eminent for the brilliant color-effects which they produce in glass, and for the exquisite grace and delicacy of their blown glass, in another style—the production of fine flint and crystal, and a glass of almost absolute transparency as well as great brilliancy, they are rivaled by the English manufacturers. The cut glass of England is especially famous for the perfection of the "metal," which is of almost limpid purity, and the heavy and refractive cutting into facet and diamond patterns, which increases the brilliancy of the metal, just as similar cutting affects a diamond or other gem.

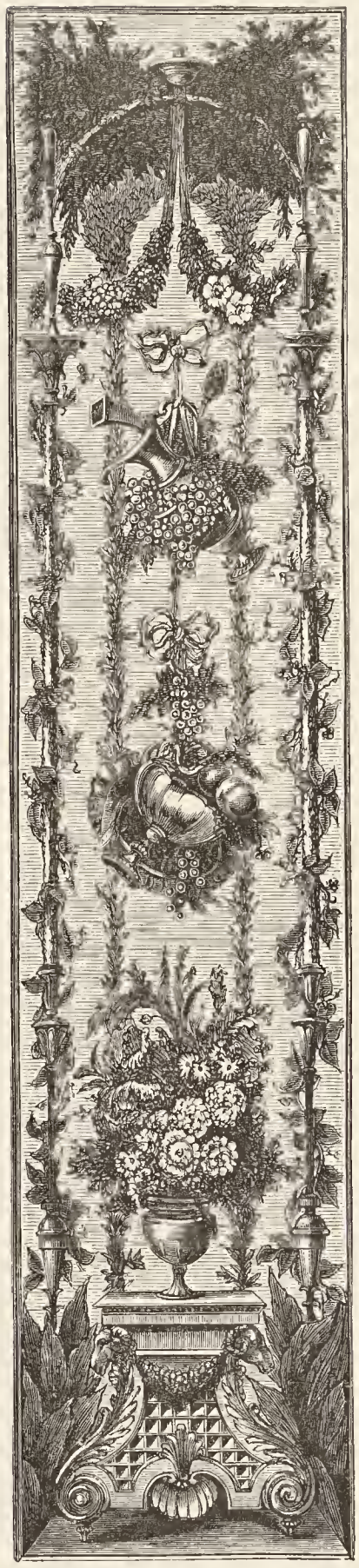
The largest and most important collection of glass shown by any English firm at the Centennial was that made by James Green & Son, of London, from which display we have chosen a Crystal Chandelier, engraved on page 461, as illustrating the particular excellence, pointed out above, of English glass. The lustres in this chandelier are superb examples of facet-cutting, and no more gorgeous object can be imagined than this gracefully-shaped pendant when it is in use and reflecting the prismatic colors in a myriad tremulous scintillations of sparkling points of light.

Another of Tompkinson & Adams's admirably designed Kidderminster

Tapestry: French Court.

CARPETS is illustrated on page 463. The several patterns, whether of conventionalized flowers and leaves, as seen in the centre ground and on the broad stripe in the border, or of simpler forms in the narrower stripes, are well worthy of observation as examples of well-considered and appropriate design. The beauty of these designs in the example before us was enhanced by the careful avoidance of glaring and garish colors, and a prevalence of secondary and tertiary tints and shades.

In the art of tapestry-making, which is allied to carpet-making, the French have for years excelled, especially in the richness of their designs. On this page we illustrate two beautiful examples of this art selected from the exhibition of TAPESTRIES in the French Court at the Centennial.

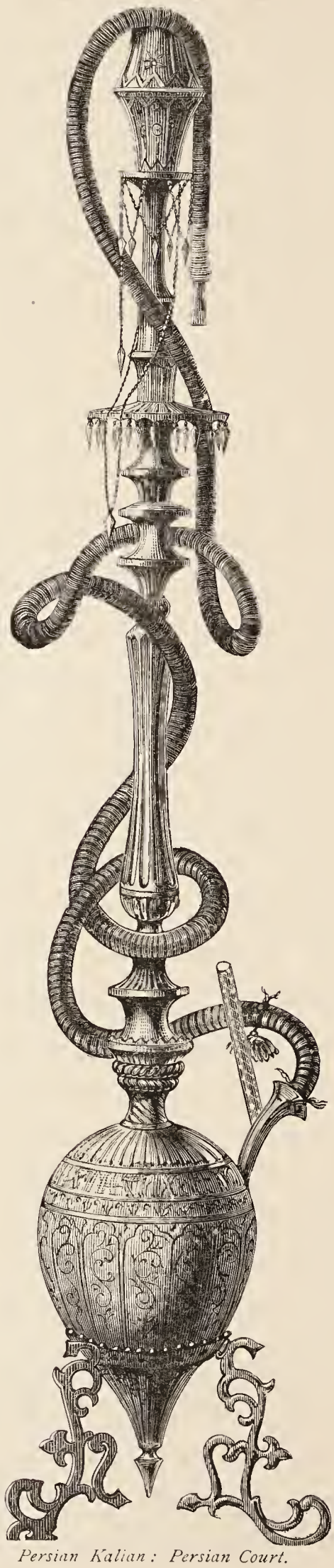


Tapestry: French Court.

The patterns, which though not exactly alike, have sufficient similarity to be considered together, are remarkably elegant and effective. In an arched arbor, about which is wreathed a climbing vine, stands an antique vase filled with

brilliantly-colored flowers. From the garlands above depend long ropes of evergreen, from which are suspended bunches of fruit and flowers and vessels and trophies suggestive of the vintage, the chase and rural sports. In the arrangement and distribution of these groups, the influence of a study of the Pompeiian style of wall-decoration on the part of the designer is plainly visible.

A characteristic work, both in the object itself and in its enrichment, is the PERSIAN KALIAN, or water tobacco-pipe, commonly called a Hookah, illustrated on this page. It consists of an earthen head, in which the tobacco and coal are placed; of a long ornamented stem running down into the bowl which contains the water, and of the flexible stem made by wrapping small perforated wooden discs in a closely twisted or



Persian Kalian: Persian Court.

woven covering. The bowl in this case is of copper metal damascened with silver, and is of the shape of the ancient amphoræ of the Romans. This shape, although used here simply for its beauty, was adopted originally in order that the smoker could stick his pipe in the ground anywhere that he chose to rest and enjoy the solace of the narcotic weed. A Roman or Greek amphora had a pointed shape for a like reason—*i. e.*, that it could be stuck upright in the ground anywhere. The tripod stand and hollow pedestal for holding these vessels were a later invention.

On page 467 we illustrate three specimens of EGYPTIAN SADDLERY, which exhibit the skill of Egyptian workmen in several branches of industry, but especially in leather decoration. Examples of this are

Harness, Two Saddles and a Bridle: Egyptian Department.

seen in the tooled work and the gilding and color enrichments on the saddle and bridle shown on the preceding page, which are evidently intended to be used together. In the other saddle the design appears to have been stamped in the leather. In the ornamentation of this but little gilding or color has been used, strips of gilt braid supplying their place. The horn and cantel of this saddle are of wood, richly carved and inlaid and bound about with metal. The saddle-cloths are richly embroidered with gold and colored threads and adorned with gay trappings. The bridle is furnished with a ring-bit, an instrument of torture to the horse in the hands of any but horsemen accustomed to using it. But to go back again to a consideration of the leather-work, we find it, aside from the novel shapes of the saddles, the most interesting thing in these objects. It represents an art that dates from the most remote period. Its manufacture in the middle ages became an important branch of industry, and numerous implements of war and useful and ornamental articles were made of leather. At a very early date, the method of ornamenting this material by impressing patterns on its surface was known. The process consisted of softening the leather by boiling, stamping it while in that condition, and then letting it dry and harden. The beautiful leather hangings, known as *tapisseries de cuir-doré* or *de cuir-argenté*, of the sixteenth and seventeenth centuries, now treasured in museums, were at one time a favorite style of wall-hangings among the wealthy classes of western and southern Europe. Some of these were decorated with patterns stamped in a mould, gilded, and afterwards burnished; but the more costly hangings had the designs wrought by hand-labor, the surface of the leather being chased with a wooden tool and the gilding and color applied afterwards. Relief figures and compositions as large as the side of a room were produced in this way, some of them were very elaborate in design as well as artistically beautiful.

The examples of wood-carving exhibited by Luigi Frullini, in the Italian Court at the Centennial, have been very fully illustrated in these pages. As specimens of artistic design and technical skill in execution they were very remarkable. On page 470 we engrave, as another example of this industrious artist's work, a Carved Cabinet, that illustrates his fine methods of ornamentation. With him arabesque designs have again been restored to something like

the purity and grace they possessed before the gaudy taste of the Bourbons stimulated the decorative artists of those times to overload their designs in this style with decorative convolutions, until all meaning and propriety was hidden or lost in a wearisome intricacy of detail.

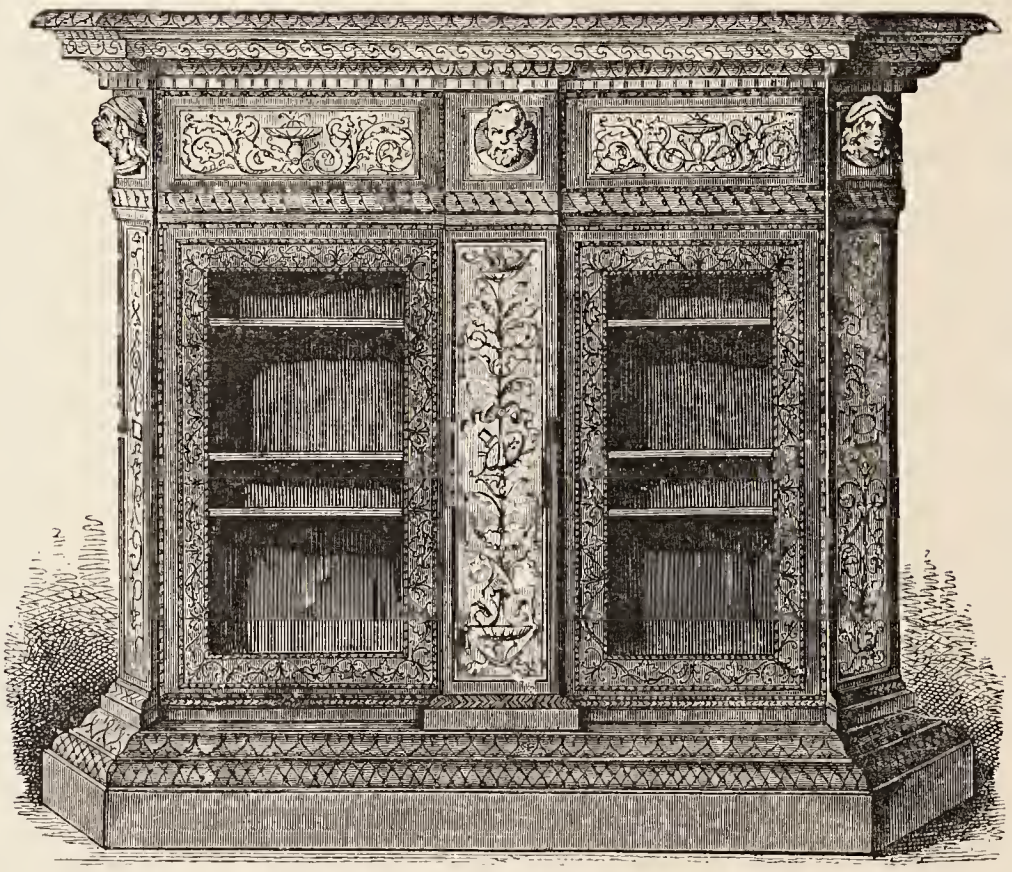
Not the least noticeable decorative features in this cabinet are the panels just below the entablature. Here, the simple convolutions of the scroll take an elegant curve, fanciful in character, but following the lines of the antique vase in the centre, which is the foundation of the ornament. In the execution of this work, the chiseling is so fine and dexterous that the piece is a curiosity as well as a work of art.

From the COLLECTIVE EXHIBIT OF GERMANY we illustrate, on page 471, two LEATHER CARD-CASES, which exhibit in their ornamentation much skill in design and workmanship. The designs are not only artistic in themselves, but they are of a kind well adapted for the material and the use to which they are put. This peculiar style of ornament, called strap-work, from its resemblance to narrow fillets or bands crossed and folded and interlaced, originated at a very early period and was extensively adopted for decorative purposes in Europe, particularly in Germany, in the fifteenth and sixteenth centuries. It is also a prevailing characteristic of the style of the late Renaissance, and has retained its favor among decorators ever since.

Another of the fine art works of the Messrs. ELKINGTON, OF BIRMINGHAM, ENGLAND, is seen in our illustration on page 472. This is a BRONZE STATUETTE, representing the capture of the Arcadian Stag by Hercules. It is so artistically and technically admirable, that it may be classed as an example of the best skill in English art bronze work. Around the side of the pedestal are a series of panels, with designs executed in low relief, representing the other labors of the hero.

The PHÆTON CUP, engraved on page 473, is still another of the art objects in the superb collection of metal-work exhibited by the Messrs. ELKINGTON at the Centennial. The cup is of silver, enriched with *repoussé*-work, chasing, and damascening in steel. We shall simply call the reader's attention to the several flowers in the ornamentation of the handles to the vase, and then leave to him the pleasure of discovering the elaborations of the artist's theme in the enrichment of this charming work.

On page 474 we engrave an illustration of the MUSICA VASE, obtained for exhibition at the Centennial by the French commissioners as an example of the famous Sèvres porcelain. This vase is of the hard porcelain or *pâte dure* variety. The quality of the material is of superlative excellence, but this very excellence is a serious obstacle to its decoration. It is impossible to get in hard porcelain anything approaching the rich color effects that make Sèvres' soft porcelain or *pâte tendre* so splendid. Indeed, the colors on hard porcelain do

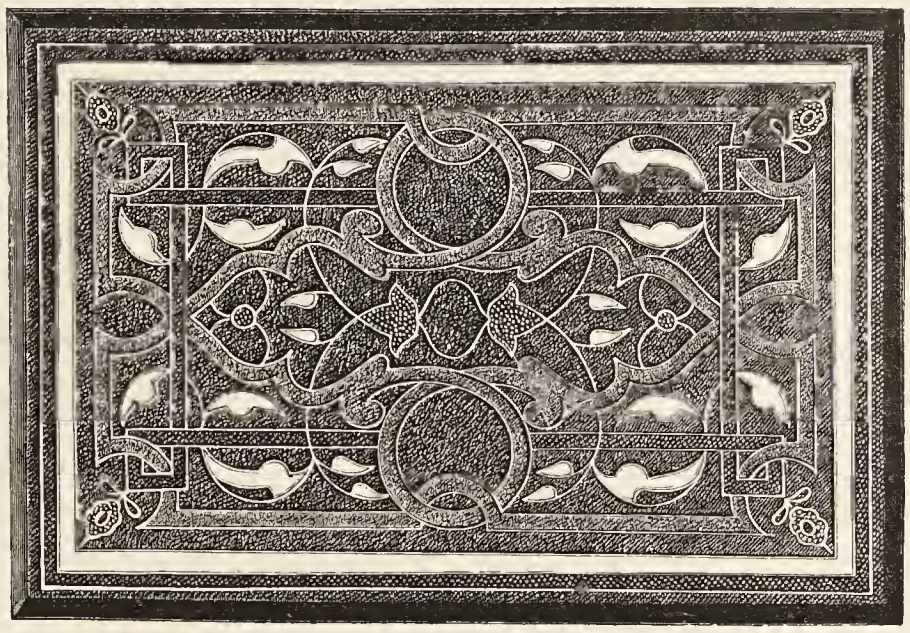


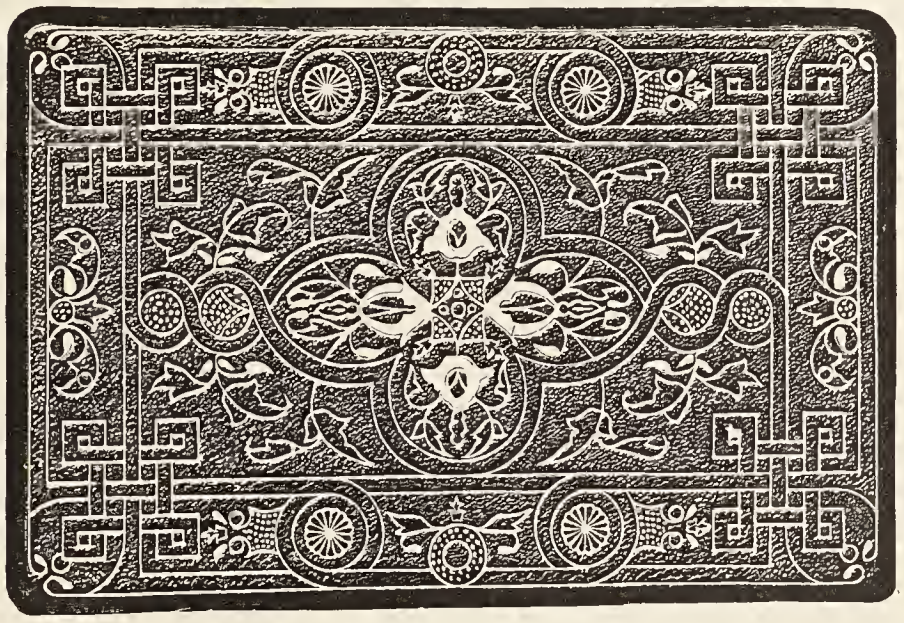
Walnut Cabinet: Frullini, Milan.

not appear to sink in at all, but rather to lie on the surface. Looking at the paintings one might think almost to discover their impasto.

It is to be regretted that the collection of pottery and porcelain exhibited in the Chinese Court at the Centennial was not only crowded together and badly arranged, but that no satisfactory information regarding it could be had from the people in charge concerning it. In these regards it formed a marked contrast to the corresponding exhibit in Japan, where everything was in order and convenient of access, and the attendants were ready and qualified to give information concerning everything shown. The confusion in the Chinese Court was the more deplorable because the porcelain there contained many really fine

pieces, both ancient and modern, and a large number of reproductions of early styles of great interest to the student. On page 475 we engrave an illustration of a PORCELAIN VASE, painted in polychrome and gilded, which is a characteristic example of the ware made for exportation. On one side of this





Leather Card-Cases: Collective Exhibit of Germany.

vase we have a design in the traditional style of decoration, and on another a composition in which European taste is catered to.

The much maligned Queen Anne style of furniture is happily illustrated in the TABLE, engraved on page 476, which was manufactured by Messrs. WRIGHT & MANSFIELD, OF LONDON. This firm made an extensive exhibit of furniture of various kinds; a specialty of their work, however, being objects in this and so-called Eastlake styles. The notable feature in this table is the

inlaying of black and colored woods, called Marquetry. The medallions in the panels of the lower drawers are executed with considerable skill, and the general effect is highly artistic.

Our engraving on page 477 illustrates EGYPTIAN VASES and other articles mostly exhibited by the NATIONAL MUSEUM and THE BAZAAR, AT CAIRO. The group contains several styles and varieties of vessels copied after old Egyptian patterns, in sun-dried and baked clay, with color and incised decorations. Some of the decorations are in Persian style and very effective. A pipe, of characteristic Turkish shape, is added to the group, and also one of the beautiful bronze hanging lamps which are in use in the mosques of Egypt.

Bronze: Elkington, London.

The exhibit of artistic and decorative pottery from the Minton, Worcester and Coalbrookdale potteries made by their agents, the Messrs. A. B. DANIELL & SON, OF LONDON, at the Centennial, measurably supplied the place of separate exhibits by those famous factories, and brought together within the limits of their cases a collection of ceramic wares unsurpassed in variety and beauty by any other exhibitor or agent in the English or any other Court. We have already given our readers illustrations of many of the *chefs d'œuvre* of this fine collection, but the number is by no means exhausted. On page 478 we engrave a FRUIT STAND, one of the decorative pieces in majolica, made by Minton to the order of the Messrs. Daniell. This piece is remarkable for its vigorous and artistic modeling, and is especially commendable for the beauty of its colors, which indicate a conquest of great technical difficulties and rare skill in potting. The

finish of the work also is admirable; all the outlines of the vessel and the contours of the figures being sharp and well defined.

One of the most remarkable and precious articles shown at the Centennial was the GLASS HANGING LAMP, exhibited by the NATIONAL MUSEUM, OF CAIRO, in the Egyptian Court, which we illustrate on page 479. It is one of the very

Phæton Cup: Elkington & Co., London.

few known specimens of enameled glass lamps for mosques, some of the thirteenth century work, which were made by the expert glass-blowers of that period. In one of his lectures on "Arts Museums," delivered by Dr. Christopher Drener, in the Academy of the Fine Arts, under the auspices of the Pennsylvania Museum and School of Industrial Art, that gentleman made an interesting mention of a similar specimen to the one engraved above.

"A most striking illustration," he said, "of the usefulness of museum specimens is found in the beautiful work of Brocard, of Paris. An Arabian

lamp was added a few years since to the collections of the Louvre. It was formed of transparent and nearly colorless glass, which was richly figured with characteristic ornaments traced in enamel colors and gold. It was brought, I

Sèvres Vase: French Court.

believe, from a mosque in Cairo, and was thirteenth century work; a specimen of a manufacture altogether new to Europe, and it was undoubtedly artistic. No sooner was it exposed in the museum than it attracted the attention and elicited the admiration of M. Brocard. But this man did not content himself

with simply admiring it; he at once attempted its reproduction, and, happily, after many attempts, he succeeded in founding an art which is most creditable to France. Brocard, however, did not merely commence the manufacture of lamps now no longer useful, but devoted his best efforts to the production of

Porcelain Vase: Chinese Court.

objects calculated to meet modern wants; and thus a new manufacture has arisen in France from the object of one object into the national museum."

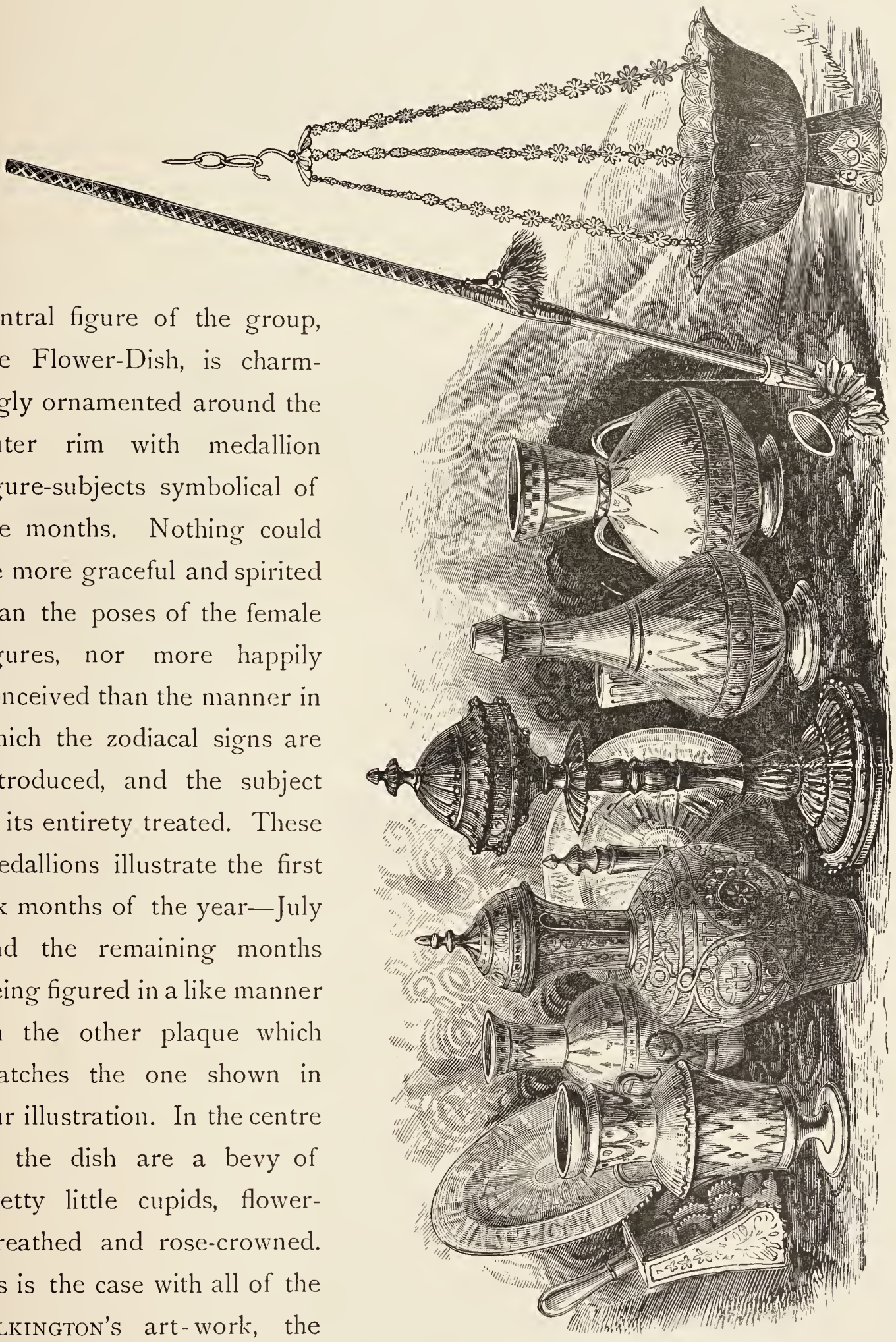
We are pleased to be able to make place for this note here, as it is a noteworthy answer to many who are disposed to underrate the present movement in this country in favor of art museums and industrial art education. There is no denying the fact that if the United States is to gain and maintain a place in the markets of the world for manufactured articles of any descrip-

tion into which artistic design enters, that we must provide schools of art instruction and art museums in the great commercial and manufacturing centres of the country. And the sooner our manufacturers awaken to the necessity of this and act accordingly, the better it will be for the community. In this city we have the above-mentioned Museum and School of Industrial Art now in active operation, and in regard to this new manufacture of Brocard, which was not shown at the Centennial, any one interested in the subject can see at the

Console: Wright & Mansfield, London.

museum a case of his superb ware, which the museum committee have obtained for the use of the students.

Recurring again to the exhibit of the Messrs. ELKINGTON, OF BIRMINGHAM, ENGLAND, we have selected for illustration on page 480 a group of ARTISTIC METAL-WORK, consisting of an Iron Tazza, with silver and copper enrichments; a large Flower Dish with water channels between raised ornamented zones; and a Silver Tazza, in repoussé-work, named from the subject the "Imprudentia." Each of these articles is a masterpiece in its way, and contributes to the great reputation of the Messrs. ELKINGTON as artistic metal-workers. The



Ceramics, Pipe and Swinging Vase: Egyptian Court.

central figure of the group, the Flower-Dish, is charmingly ornamented around the outer rim with medallion figure-subjects symbolical of the months. Nothing could be more graceful and spirited than the poses of the female figures, nor more happily conceived than the manner in which the zodiacal signs are introduced, and the subject in its entirety treated. These medallions illustrate the first six months of the year—July and the remaining months being figured in a like manner on the other plaque which matches the one shown in our illustration. In the centre of the dish are a bevy of pretty little cupids, flower-wreathed and rose-crowned. As is the case with all of the ELKINGTON'S art-work, the delicacy of the workmanship and the fine execution are quite equal to the purity and elegance of the designs.

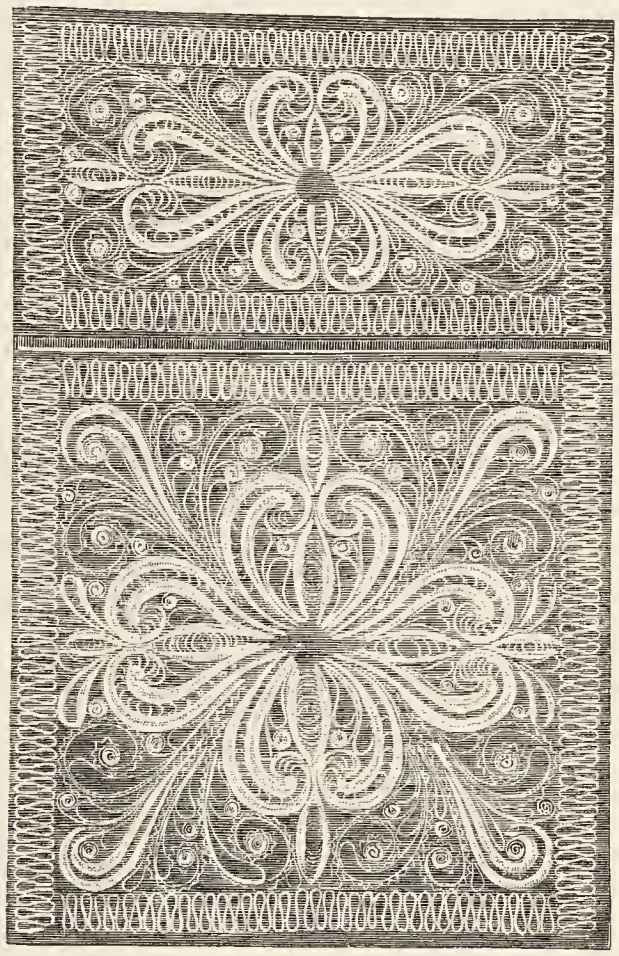
A characteristic feature of the display of jewelry, gold and silver personal ornaments, etc., in the Italian Court at the Centennial, was the filigree work, principally from Genoa. This beautiful style of working the precious metals, a style that is of the highest antiquity, is nowhere at the present day carried to such a degree of perfection in delicacy and grace of treatment as in Italy. The Eastern nations have for ages been remarkable for their proficiency in this kind of metal-work, and in certain particulars the oriental filigrees excel those of Europe; but the exquisite arabesques and flowers of Italian filigree, wrought on a ground of lace-like minuteness, have a beauty peculiarly their own. In old times, among the Italians, who revived this delicate art, it was the fashion to place beads upon wire used in forming the design, and hence, according to Dr. Ure, the word *filigrana*, from *filum* and *granum*, or granulated net-work. On page 479 we give an illustration of modern Italian filigree, in a CARD-CASE, made by C. SALVO & SON, OF GENOA, whose exhibit was particularly rich in this style of work.

Fruit Stand: Daniell & Son, London.

The luxurious and exuberant fancy of French designers, who unquestionably excel those of any other European nation as decorative artists, was illustrated in a thousand different ways at the Centennial, but in no one particular, perhaps, was it so apparent as in the designs for surface decoration, such as wall-hangings, curtains, furniture-covers, etc. Some of the latter were of such costly stuffs, and so elaborately enriched, that they suggested a return to the prodigality and extravagance of living that obtained in the gorgeous reign of the fourteenth Louis. Some of these examples of what the fertile fancy of the decorator of textiles could accomplish were removed, by the dignity and merit of the design, from among productions of utility to the sphere of the Fine Arts. On page 481 we give an engraving of one of these, a FURNITURE SILK, that is particularly admirable. It does not occur to us, in

regarding this fine composition, to consider the durability of the fabric or its possible subjection to wear and tear; and, indeed, in any but a palatial apartment this elaborate work would be more appropriate as a wall-fresco than as an ornament to a chair-back. The original, however, belongs to a set of furniture-silks, exhibited in the French Court at the Centennial, each one of which has its separate ornament, designed to cover a space of the shape required by the article of furniture to be upholstered.

Glass Hanging Lamp: Egyptian Court.



Gold Filigree Card-Case: C. Salvo & Son, Genoa.

On page 482 we engrave a group of objects from the India collection in the British section of the Exhibition, illustrative of certain of the industrial arts obtaining in that country. Here are hats and baskets of cane and straw, specimens of ivory, and objects in lacquered wood. The method of lacquering, as described by Mr. Watson, the Director of the India Museum, is as follows: The object to be lacquered is turned from hard wood, usually shisham. After being smoothed and cleaned, it is again fixed in the turner's frame (a kind of lathe worked by hand), and made to rotate. The sticks of lacquer color, consisting of a mixture of lac, resin, coloring matter, and, it is said, a certain proportion of sulphur and bees-wax, are then applied to the rotating object;

Tazza of Iron, with Silver and Copper Enrichments; Rose- and Water-Dish, representing the months; and small Silver Tazza—"Imprudentia": Elkington & Co., Birmingham.

the heat produced by friction is sufficient to soften the lacquer composition, which attaches itself to the wood, producing, however, a dull and streaky appearance. When sufficient color has been applied, the surface of the article is skillfully rubbed with a piece of bamboo having a fine edge, by which the color is evenly distributed, and a polish produced, which is finally completed

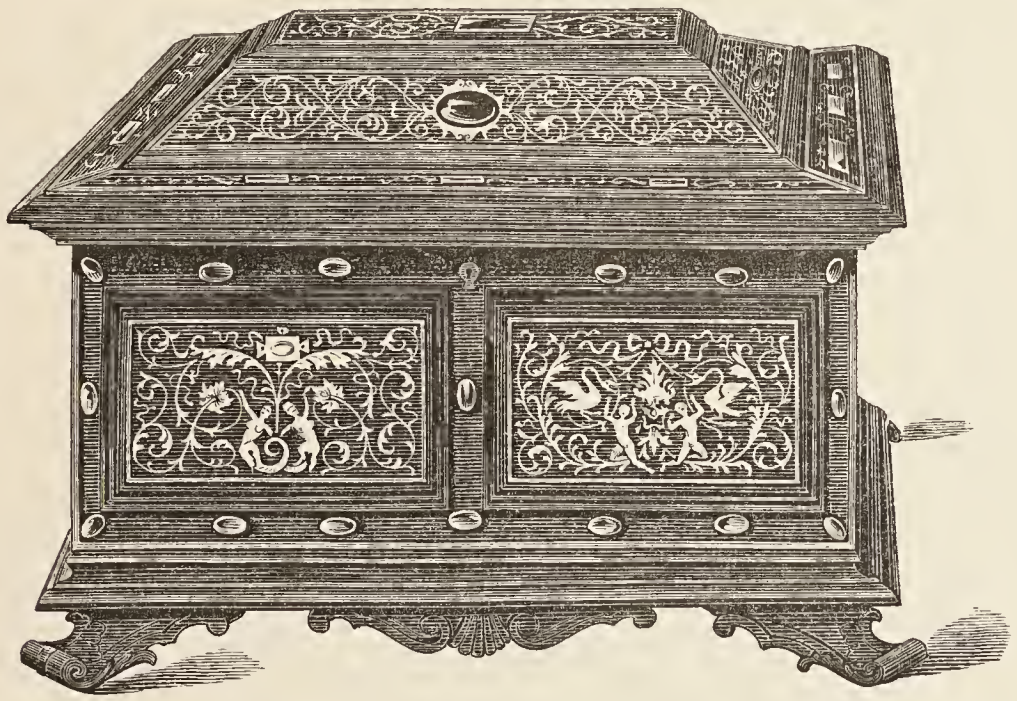
Furniture Silk: French Court.

Group of Objects from Egyptian Court.

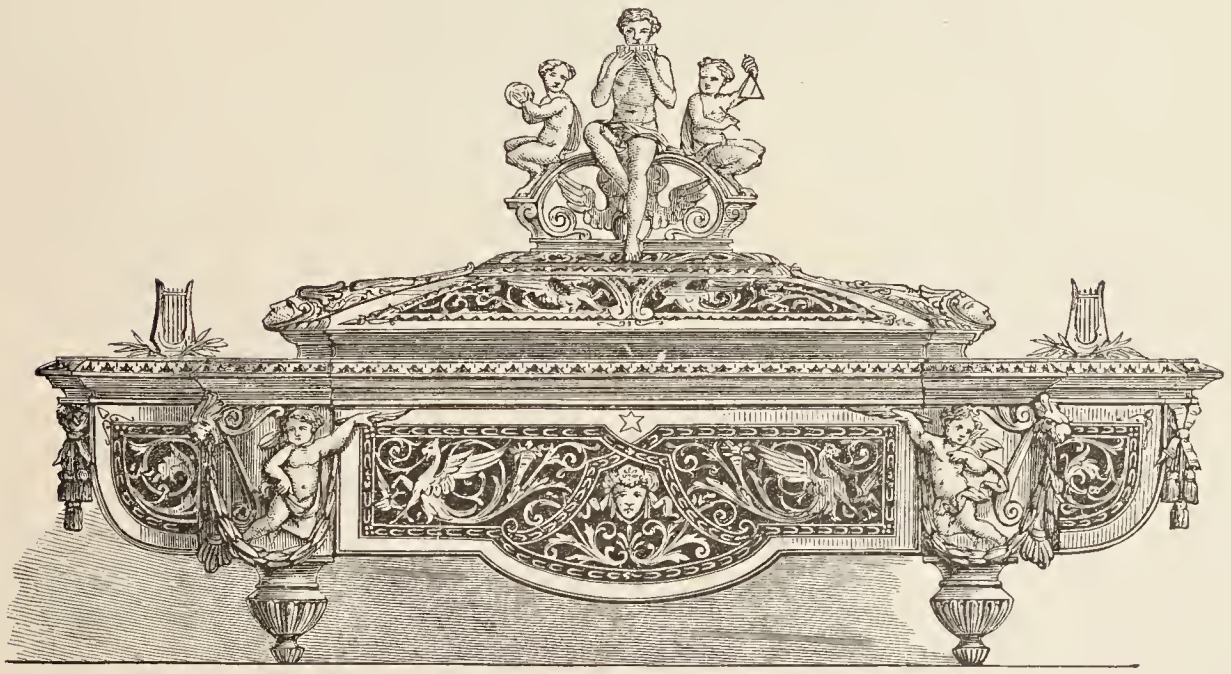
with oiled rags. To produce the mottled appearance so much admired, a color stick of a rather harder composition than that used for producing a uniform color is tightly pressed against the rotating object, so as to detach a point

here and there. This is repeated with sticks of different colors, and when sufficient color has been laid on, the object is polished with bamboo edges and oiled rags.

Here also are musical instruments, a horn, wind instruments, instruments



Jewel Casket: Salvo & Co., Genoa.

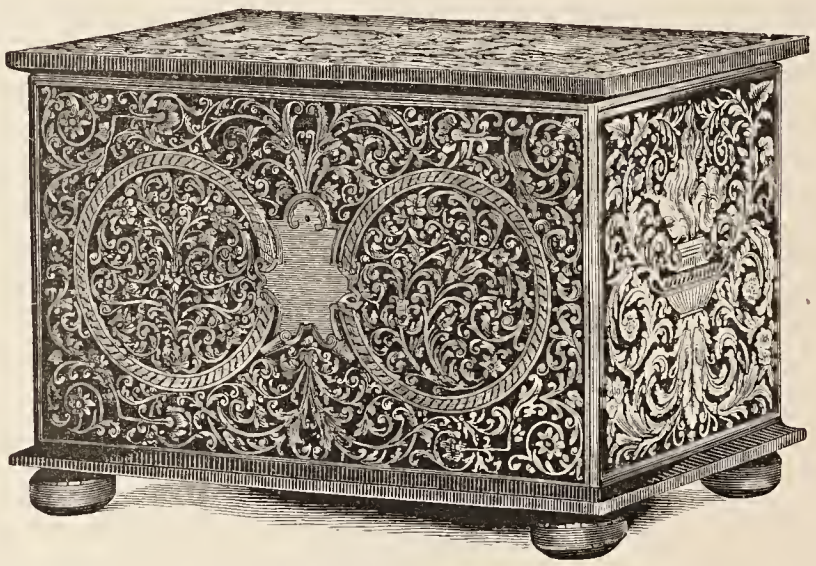


Damascened Casket: Elkington & Co., Birmingham.

of percussion, and a kettle-drum; a saddle and several pieces of pottery from Scinde. The method of making this ware, according to the authority already referred to, is to shape the vessels on the wheel while the clay is damp and dough-like. After the vessels have dried, they are again put on the wheel, and

finished by means of an iron tool. The vessels having been sun-dried, may then be sent to the kiln, after which the required pattern is traced on them in the following manner: A perforated paper pattern is placed upon the article, and powdered charcoal sprinkled over it. On removing the paper, the pattern remains on the earthenware, and is then brushed over with a solution called "sahree" (a paste made from a peculiar kind of clay mixed with water). When this is dry, glaze of the required color is prepared and poured over it, the article is then allowed to dry again, after which it is placed in the glazing-kiln, and subjected to the required amount of heat. The articles are not removed until the kilns are cold.

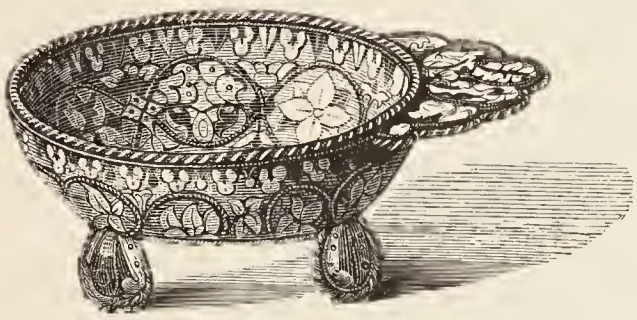
Other objects in this group are an idol of carved stone, specimens of dyed matting and bamboo, and a frame painted in a style illustrative of Indian architectural decoration.



Steel Casket: M. E. Phillipe, Paris.

Another example of Genoese goldsmith-work, by MESSRS. SALVO & CO., is the beautiful inlaid JEWEL CASKET, illustrated on page 483. Our readers will remember the filigree Card-Case, manufactured by this firm, which we illustrated on page 479, as a specimen of a characteristic and favorite style of workmanship in Italian personal ornaments and small objects in the precious metals; but this casket is ornamented in a way, though commonly practised among oriental nations, unusual in Europe, and as such is noteworthy. The panels on the sides of the box, as well as those on the lid, are covered with delicate scroll traceries, figures and grotesques, inlaid with white metal in the bronze. This was done by first engraving the design to be inlaid in the surface of the bronze and cutting out the spaces to be inlaid. The metallic composition was then melted and poured over the bronze so as to fill these lines and spaces. When the metal has cooled, the surface is rubbed down and polished, and the sharp edges of the bronze closed down about the inlay, so as to make the two metals adhere closely together.

On the same page we engrave a CASKET, made by ELKINGTON & CO., OF BIRMINGHAM, ENGLAND, that, besides some beautifully modeled figures in the round and in *repoussé*, is farther ornamented with work that resembles the inlaying described above, but which is a variety of damascening. Here the design is cut according to the pattern in the surface of the metal to be deco-



Punch-Cup: Ovchinikoff, Russia.

Enameled Plaque: Russian Court.

Enameled Antique Reproduction: Elkington & Co., Birmingham.

rated, after which a thin plate of gold is laid over the design, and hammered and burnished into it, forcing down the edges of the enclosing metal, obliterating the incisions, and restoring the original polish. The MESSRS. ELKINGTON exhibited several methods of damascening in their superb display of metal-work. Beside that just described, there were examples of damascening by simply gilding the surface with gold-leaf, and fixing it to the metal by burnishing. A third method was by incrustation, a process in which channels are cut in the metal, into which gold or silver wire is hammered and afterwards

rubbed down. The most artistic and elaborate of these damascenings, shown by the ELKINGTONS, are not their own work, but are done for them in Spain, by the metal-sculptor Zoloaga, who is unrivaled in this particular branch of his art.

Among French goldsmiths this kind of work is largely practised, and in some instances with distinguished success. A particularly fine example, made by M. E. PHILLIPE, OF PARIS, is the STEEL CASKET, engraved on page 484. The tracing in this design is of the most elaborate character and exquisitely minute, yet each hair-stroke of the graver has its complement of gold inlay welded, so to speak, into the steel surface.

On page 485 we engrave two specimens of enameled metal-work, from Russia—a specialty in the display of the goldsmith-work of that nation that attracted universal admiration. The official report on this department of the Exhibition says of this work that "the radiant beauty of the gem-like enameling upon gold and silver and gilded silver utensils in Greek, Byzantine and Russian taste, were such marvelous illustrations of the capabilities and truly artistic fancy of Russian artisans as would have awakened the enthusiasm of a Benvenuto Cellini and that of the historical Palissy, the famed enameler of Limoges." Higher praise than this could not readily be expressed, and in truth one rarely finds such superlative expressions used officially. Certain it is, however, that the Russian enamels were exceedingly brilliant, and some of them, especially the translucent enamels, gorgeous in color, and often, indeed, "gem-like" in effect. The artistic excellence of the designs showed that Russian artisans possess decided talent of an original kind, as well as the ability to design in the more refined, if less vigorous, styles of Western and Southern Europe.

On pages 487 and 488 we engrave the AURORA and CREPUSCULE PLAQUES, made by the MESSRS. ELKINGTON & CO., OF BIRMINGHAM, ENGLAND, which, though the last of our series of illustrations of the art metal-works of this famous firm in the Exhibition, are deserving to rank in artistic design and skilful exccution with the best of their more elaborate works which we have already engraved. The design of the plaques suggest Thorwalsden's famous "Night and Morning," but there is nothing more than the suggestion. The composition is original if the idea is not, and the modeling of the figures is exquisite. They have the rare proportions and matchless symmetry of classical forms, expressed with rare

individuality and grace. One does not know which to admire the more—the bright sunlit atmosphere and animated expression in the Aurora, or the subdued twilight effect, the reposeful feeling pervading the Crepuscule. It is marvelous to think that these forms of beauty have been beaten into shape, blow by blow, with a hammer—each stroke upon the snarling-iron making an indentation in

Aurora Plaque: Elkington & Co., Birmingham.

the metal which produces finally the raised design. Simple as it is in itself, we would direct the reader's attention to the plain steel band, studded with stars, around the central medallion, as one of those fine touches where the highest art is shown by the use of the simplest methods. The rounded rims of these plaques, which form a shield for the surface of the central design, are enriched with a damascened foliated scroll figure, sufficiently rich and graceful to make a harmonious setting, but not so elaborate as to distract the attention from the subject of which they are only the frames.

Our engraving on page 489 of JEWELRY, diamonds and other precious stones, set in the precious metals, from the exhibits in the United States Department at the Exhibition, worthily illustrates a branch of manufacture in which American work shows an artistic skill and excellence worthily comparable with the best that Europe can show. The official report certifies to the fact that "the better

Crepuscule Plaque: Elkington & Co., Birmingham.

examples—though few—of American jewelry equaled those of any other nation as to display of taste, mechanical execution, or quality of material."

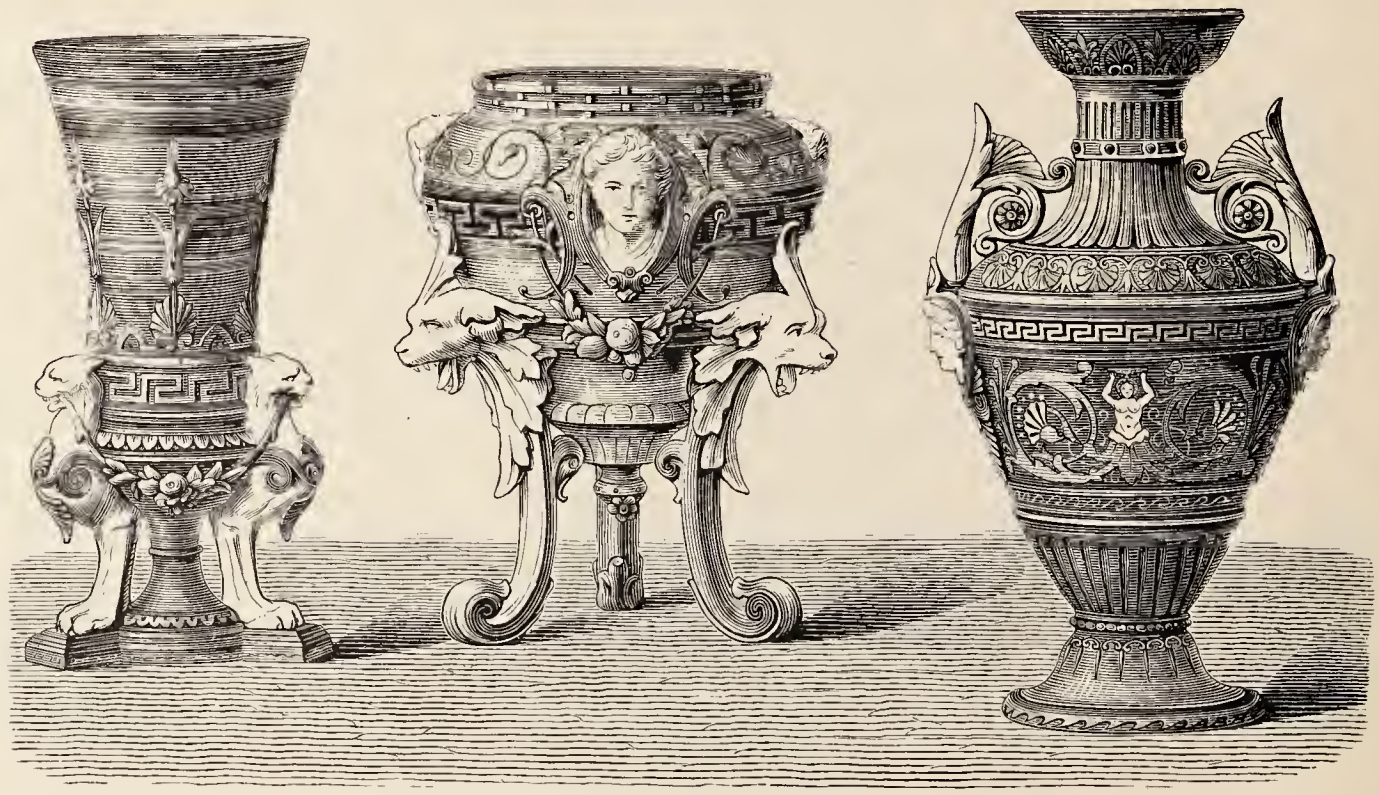
The PEACOCK'S FEATHER, which forms the central object of the group on page 489, was one of the most elaborate pieces of diamond jewelry shown in the Exhibition. It is intended to be worn as an ornament for the hair, and the back shows an elaborate net-work of gold, with numberless interstices through which the play of light may add brilliancy to the diamonds. The eye of the feather is formed of a single stone of peculiar brilliancy and beauty, which has

been long known to connoisseurs as the Brunswick yellow diamond. It was a favorite gem of the eccentric Duke of Brunswick, and he is said to have refused

Jewelry: United States Court, Main Building.

twelve thousand pounds sterling for it. The color is a delicate lemon yellow, little unlike the brownish "off color" of the African stones that have become

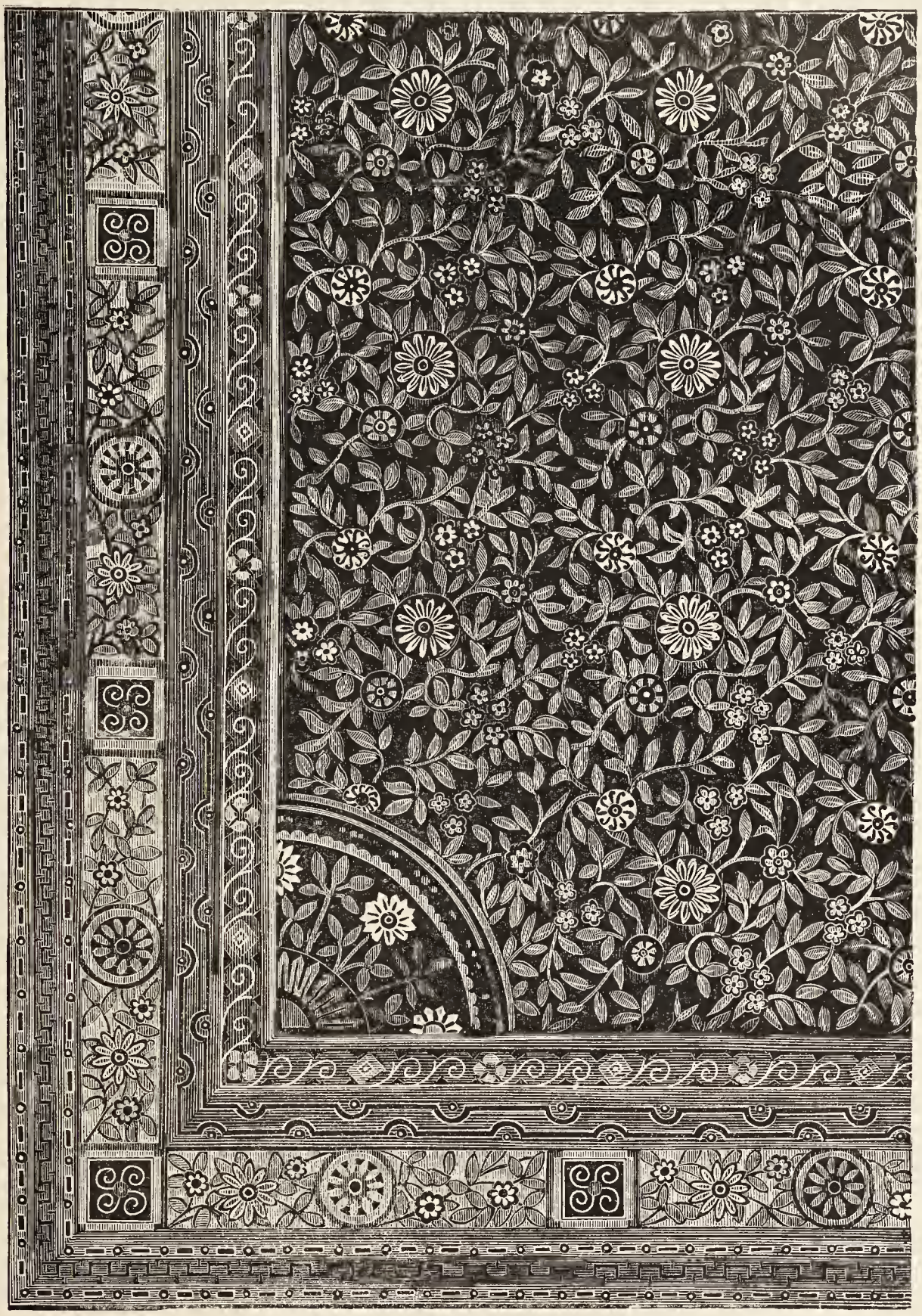
so plentiful within the last few years. On the death of the Duke, his vast collection of jewels was sold at auction in Geneva, and this stone was then purchased by one of the house of TIFFANY & Co. Immediately surrounding this singular gem, which weighs thirty carats, is a circlet of smaller diamonds, nearly like the central stone in color. The outer circle of the setting of these gems is of red gold with a fringe of platinum, and the effect of the combination of colors is highly pleasing. Though the setting is heavy enough to be



Faïence: Count von Thun, Austria.

perfectly strong, an unusual lightness and feathery appearance is produced by means of numerous joints and springs which cause a quivering movement at the slightest vibration, and reflect the light in a myriad of scintillating, dazzling points. This superb jewel contains six hundred diamonds, and may well be regarded as a masterpiece of diamond-setting.

Among the other specimens of jewelry on this page are a pair of perfectly matched diamonds, of the first water, set as solitaires for ear-rings in as delicate a manner as is consistent with security. A favorite style of jewelry at the present time are the flower shapes and patterns shown in our illustration. Some of these are exquisite, as where a diamond simulates a drop of dew upon a leaf, or where pearls are so set as to appear like snowdrops or berries. On

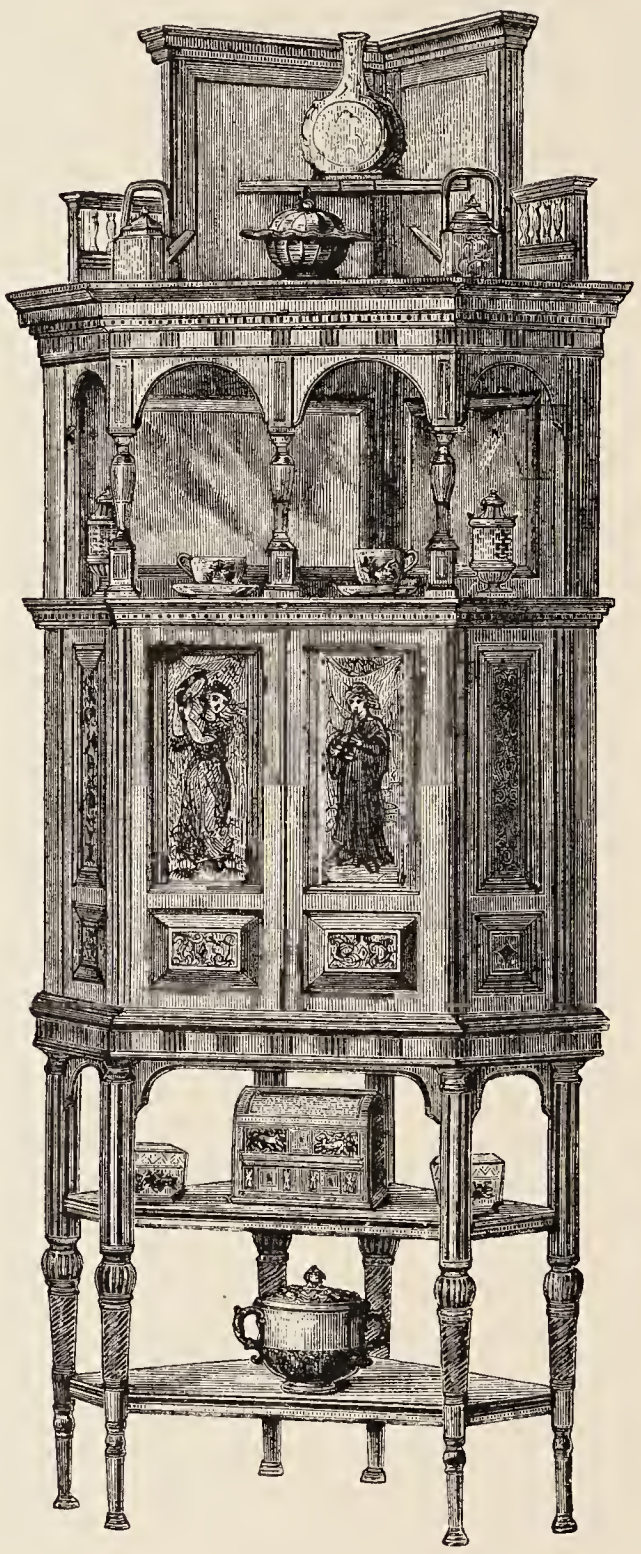


Carpet : Tompkinson & Adams, Kidderminster.

one leaf is an insect, its body of gems as resplendent in color as Nature's own handiwork.

On page 490 we engrave three pieces of ornamental FAIENCE from the exhibit of COUNT VON THUN, made at his potteries in KLOSTERIE, BOHEMIA, and

shown in the Austrian Court at the Centennial. These works show, in several respects, the good influence of the Imperial Austrian Museum of Art and Industry, at Vienna, and are especially noteworthy for the excellence of their contours and the vigorous modeling of the relief ornamentation. The vase on the right hand of this group was one of the most brilliant pieces of color decoration in the Count von Thun's collection, and a triumph of the potter's skill in this regard. The designs, too, are rich and elegantly conceived, and the handles, in the shape of leaf-tendrils, are charmingly conventionalized.



Cabinet: English Court.

The KIDDERMINSTER CARPET, manufactured by TOMPKINSON & ADAMS, shown in our engraving on page 491, illustrates so admirably the new principles of ornamental design formulated by the South Kensington Museum School and other places of a like nature in England, that a reference to some of these principles, as laid down by a writer of recognized authority, Gilbert R. Redgrave, who was for some time Inspector-General for Art, Science and Art Department, South Kensington, will be interesting and instructive in this connection.

In his "Manual of Design," a book which all students of the subject should carefully peruse, Mr. Redgrave, speaking of paper and other hangings, says that if the use of such materials is borne in mind, the proper decoration for them will at once be evident, since materials of this class ought to bear the same relation to the objects in the room that a background does to a picture. In art, a background, if well designed, has its own distinctive features,

yet these are to be so far suppressed and subdued as not to invite especial attention; while as a whole it ought to be entirely subservient to supporting and enhancing the principal figures—the subject of the picture. The decoration of a wall, if designed in good principles, has a like office: it is a background to the furniture, the objects of art, and the occupants of the apartment. This law applies in the same measure to carpets. The use of these fabrics suggests the true principle of design for their ornamentation. Flatness should be one of the principles in decorating a surface continually under the feet; therefore all architectural relief ornaments, and all *imitations* of fruit, shells, and other solid or hard substances, or even of flowers, strictly speaking, are the more improper the more imitatively they are rendered. As a field or ground for other objects, the attention should hardly be called to carpets by strongly marked forms or compartments, or by violent contrasts of light or dark, or color; but graduated shades of the same color, or a distribution of colors nearly equal in scale of light and dark, should be adopted—secondaries and tertiaries, or neutralized primaries, being used rather than pure tints, and lights introduced merely to give expression to the forms. Under such regulations as to flatness and contrast, either geometrical forms, or scrolls clothed with foliations in any style, leaves, flowers or other ornament, may be used, which, with borders and compartment arrangements, and the use of diaper treatments, leave ample room for variety and for the inventive skill of the artist. The soundness of these principles will be manifest to all who give the subject of design proper consideration, and no better proof of the fact that, working strictly within these limits, beautiful things can be accomplished, is needed than the illustration before us. The design for this carpet answers the requirements above stated exactly, and every one can see for himself how satisfactory is the result.

The American exhibit of furniture at the Centennial was especially remarkable for the superiority of its machine-work and the astonishing number of ingenious contrivances, patents, all of them, in the way of folding pieces, which, when not in use, looked like anything but what they really were, and often, indeed, answered several entirely distinct purposes. Some of the machine-made furniture was of a very high grade of excellence, though not equal to the hand-made, and in some of the latter the beauty and fitness of the carving and other ornaments was but little inferior to that of European nations, and more graceful

in outline, if less correct in form and application, than that of England. But where our manufacturers were most deficient was in honesty and strength of construction, and in these particulars English furniture was superior to all other nations. Even in a light and delicate article, like the CABINET illustrated on page 492, the joinery was of the best, and an examination of the construction showed that the work was done thoroughly throughout. This, however, is not all that recommends this particular object to the reader's attention, for it is a charmingly ornamental piece of furniture as well, admirably proportioned, graceful in outline, and ornamented with taste and judgment. The panels in the doors of this cabinet are exquisitely painted with figures on a gold ground. This sort of panel-painting, whether on wood or clay, makes a very effective ornamentation for furniture, and we are glad to observe that it is becoming popular in this country.

Lace Border: Collective Exhibit of Brussels.

On this page we engrave a BRUSSELS LACE BORDER, chosen from the unrivaled exhibit of laces in the Belgian Court at the Centennial. The lace of this country has long been remarkable for several special excellences in its manufacture, and the finest kinds command prices that are beyond most purses. Some small articles have taken many years to make, the worker wearing out health and eyesight in

accomplishing her task. But of late years machinery has been applied to this manufacture with great success, and so perfectly have hand-made laces been

Lace Curtain: Jacoby, Nottingham.

imitated that none but an expert can detect the difference. Indeed, in many localities hand-labor has been entirely discarded for that of machine. On

Cashmere Shawl. Exhibit of Saxony.

page 495 we engrave a charming design of machine-made NOTTINGHAM LACE, intended for a curtain, from the well-known factory of JACOBY, in NOTTINGHAM. Some of the patterns in these favorite laces are of an elegance that leaves nothing to be desired, and not their least admirable peculiarity is their cheapness.

The CASHMERE SHAWL, illustrated on page 496, differs only from a shawl made in Cashmere, in that it is made in Saxony and by machinery. The material is pershon, or shawl-wool; that is, the downy substance growing next the skin and under the thick hair of the goats inhabiting Thibet and the other elevated regions to the north of the Himalaya Mountains; and the pattern is similar to those wrought with such labor and patience in the hand-looms of India. Here, again, as in the case of the lace manufacture just referred to, the aid of machinery has been sought to imitate the labor of the hands, and to such perfection have shawl-making machines been brought that one who is not an expert cannot detect any difference in the fabrics. Doubtless many persons having so-called Cashmere shawls congratulate themselves on having a genuine hand-made chuddah that cost an astonishingly low price, when in truth it is one of these machine-made European imitations that has been sold at an excellent profit to the manufacturer.

THE LESSON OF THE EXHIBITION.

AMONG all the educational movements which have arisen in this country during the last decade, none has seemed to be so completely in harmony with the spirit of the times as education in the elements of industrial art. As wealth and European travel have increased, a taste for the skilled handiwork of foreign craftsmen has been rapidly developed among our people, and the desire to become the possessors of elegant objects to make home attractive has amounted almost to a passion. This alone is sufficient to account for the somewhat anomalous spectacle, that the houses of opulent and even moderately rich Americans are usually furnished—not merely ornamented, but furnished—with objects and materials of foreign product.

In every country in the world may be found among the surroundings of wealthy travelers gleanings of rare or curious objects collected from other

countries, but these have a well-defined position entirely apart from what we have referred to as the furniture of a house.

It is questionable whether we could find in any other country so general a fashion as that which prevails here, of furnishing the best houses, from foreign sources, with all objects implying in their design and manufacture the highest taste and the most experienced skill in execution.

Such a condition of things as this is neither creditable to the enterprise of manufacturers nor profitable to society from a purely economical point of view. If with a severe protective tariff maintained for the purpose of excluding foreign manufactures, it is still to be found that they are here, competing more than successfully with native products in industrial art, and practically monopolizing the vast sums annually expended on objects of use and ornament by the ever-increasing wealthy classes, there must be some radical deficiency either in our manufactures or our education which permits so remarkable a circumstance.

Swedish Ornamental Iron Door.

The simplest explanation of this may be found in the absence of opportunities for the development of skilled labor in America. Whilst other countries have been establishing schools and institutions for secondary education, thereby ensuring for their industries and manufactures the potent influence of skill and knowledge in art and science, we have been content to go on inventing labor-saving

machines and processes, and neglecting the technical education of the people; regardless of the fact that in this rapidly progressing age, labor without taste or skill is a comparatively worthless thing, and is paid for at the lowest price. On the other hand, the products of skilled labor are like currency in every civilized country, and are paid for at the highest price. It matters nothing whether they are to be found in Paris, London, Berlin, Munich, Rome, or Japan, they will be sought for and secured at any price by those who have the taste to appreciate and the means to buy them.

Beauvais Tapestry.

It is of such ideas as these that International Exhibitions are the offspring. The world is competing more in the production of quality than quantity, and raw material in the bulk is getting to be a less precious freight than the triumphs of the studio, the furnace or the loom. Thoughtful men begin to see that the mere power of production in industrial manufactures, and even the exceptional advantage of a closely protected and extensive home market for their consumption, are not of themselves alone sufficient to defy competition and secure the market. They see what experience has demonstrated, that the possession of natural resources is not of itself sufficient to ensure the prosperity of a people under the conditions which modern civilization has imposed on the different races of men. The productiveness of the earth and the wealth of raw material require the transforming hand of man, skilled in the arts and sciences, to change these

rich gifts of nature into products which satisfy the needs of civilized communities. A country which possesses abundance of the raw material of trade and commerce, but whose people are deficient in manufacturing skill or the taste which directs it, must of necessity be inferior to another country, equally blessed in natural resources, but whose manufactures are directed by the highest influences that art and science can employ. From this aspect skill becomes a matter of the highest importance, and its general development and application the surest material foundation for a nation's prosperity.

Shawl: Compagnie des Indes.

The diffusion of a sound system of general education is considered to be the surest safeguard of liberty and independence. What we now need is a development of general education in the direction of art and science, to place us on an equality with the older nations in the application of trained skill to the elevation of industrial manufactures.

We cannot export corn and oil and cotton and pork, and import French bronzes, or German porcelain, or English carpets, without being the sufferers; for the year's work of six men in producing such exports will hardly pay for the year's work of one skilled artisan whose imported handiwork we appreciate and buy. Just to that extent we are the losers, and with this view it would seem to be our duty to provide our working and productive citizens with such opportunities of acquiring skill as will place them on an equality with their compeers in other countries of the world, thus ensuring to them an equality of productive power and value for their labor to that possessed by the same classes in other countries.

It needs but the example offered by France to convince us how great a strain any country can bear whose industries are fortified by skilled labor.

Perhaps no other country, with possibly one exception, could have paid the penalty of milliards of money for foreign aggression, besides bearing the enormous cost of her own military operations, without becoming ruined and undone. Yet to-day the skilled manufactures of France are righting the country, and with the power of supremacy in taste she claims tribute from the whole world.

The periodical occurrence of International Exhibitions enables us to see the relative progress made by different nations in the broad fields of industrial art and science, and to those who have been fortunate enough to watch this progress from the first exhibition in London, in 1851, to the last in Philadelphia, in 1876, the changes made have been very great. The present is pre-eminently an age of revival in art in many of the old countries, and the influence of such exhibitions as that we have enjoyed this year has been to encourage such revivals, and create a general love of art where it is not an ancient story.

Shawl: Compagnie des Indes.

It is not too much to say that in the exhibits of every country participating in these general displays, there has been evidence of a striking improvement, as each exhibition succeeded the last, in all the sections containing objects of industrial art. The example of successful manufacturers and the masterpieces of designers have influenced the enterprise and skill of those whose success, through want of sufficient skill, has not been what they desired.

The objection which some manufacturers have raised against International Exhibitions, that they gave opportunities for the weak to imitate the strong, and placed the accumulated experience and success of the few at the service of the many, must be regarded as a powerful argument in favor of such displays, from every point of view, including that of the successful manufac-

turer. With a knowledge drawn from observation of many such exhibitions, we do not hesitate to say that, whatever progress may have been made between one exhibition and another, by those who may have found need for improvement, those who have held a leading position in any one have seldom forfeited it at a subsequent exhibition, except by their own consent. The general eleva-

Cloisonné Enamel Plaque.

tion of taste has created a higher and sounder appreciation of really good work, and it is as possible for those who have done good work to advance to better and best, as for those who have done bad work to progress into good and better.

The highest success in any branch of industrial art is never the result of a secret that can be kept from the rest of the world by its inventor, and all efforts to conceal any detail or process characteristic of good work must be unsuccessful if the work itself is to be generally appreciated. Even in fine

art, faith in modes and processes, as influencing the production of excellent works, or accounting for their excellence, may be reckoned amongst the lost creeds. Sir Joshua Reynolds making a section of a picture by an older master, or successively removing each coat or painting of it, from the varnish to the canvas, in order to find out the processes by which it was produced, is only a refined imitation of the boy who made a surgical investigation within the interior of a pair of bellows to find out where the wind came from. The process of

French Enameled Vases.

painting had as little to do with the beauty and attractiveness of the picture as with the same features of Sir Joshua's own work; and whilst the world is daily and hourly increasing its love for and appreciation of the pictures produced by the first president of the English Royal Academy, all lovers of art must regret the useless experiments made by him, which have resulted in the premature decay and destruction of many of his most beautiful works. A fruitless effort to discover and take advantage of a secret when there was none to be found, sacrificed much of his own work which would otherwise have been equally permanent, and, as many would think, equal also in beauty, to the subject of his inquiry. Still less can monopoly of industrial art in any of its departments

be maintained by the nursing of imaginary secrets which exclusive or narrow-minded people fancy they have discovered, nor is there any protection to be found on this earth for people who wish to stand still themselves and desire the rest of the human race to imitate their example.

The safeguard of the successful manufacturer, or of national pre-eminence in industrial art, must be the continued application of the skill and foresight which achieved the success or conferred the pre-eminence. Even the world itself is no longer large enough for a man to hide in, and there is no hole or corner in it where a secret can be kept. People do not now speak of the steel of Toledo or the silk of Genoa, because wherever silk or steel is required, with motive sufficient, it will be forthcoming. Behind this world-wide reputation for the production of excellent work, there was something more influential than good material in the possession of its producers. The skill and craftsmanship they were masters of constituted the open secret of their success, and conferred upon them a pre-eminence which could never be taken away except by superior workmen in their own crafts. So it is with the modern representatives of the ancient craftsmen, the manufacturers who supply our thousands and millions of people with the necessities, comforts or adornments of civilized life. No refusal to take part in an International Exhibition, for fear of having their designs or styles pirated or imitated, can protect them from the aggressiveness of equal or greater skill than their own, and less skill they do not fear.

In the general diffusion of education, which is perhaps the marked peculiarity of the nineteenth century, and in the development of special or technical education in many countries, we may look for a sufficient cause why the skilled industries of the world are becoming more appreciated and more universal. Modern facilities of locomotion and transportation will eventually equalize the different quarters of the world, so far as the possession of raw material is concerned, leaving nothing as a field of competition except the application of scientific and artistic skill in design and manufacture, whilst education will therefore create the demand for good work, and scientific inventions have practically abolished the barriers of distance and advantages of locality; there yet remains, as subject for competition, the pre-eminence in industrial art of a higher standard which a more highly educated race will require in the future.

The modern International Exhibition of Arts and Sciences is the embodi-

ment of a generous and peaceful rivalry in the production of the excellent, and a full participation in these contests indicates a healthy vitality, displaying both the desire to learn and the desire to teach. The world going to one school-house, every country to be ranked according to its attainments and merits, prepared to learn from others what it does not know, and teach to others what it does know, committed to both by its presence at school, is, to say the least, a very delightful spectacle. The difference in race, climate and history of the people and natural products of the several quarters of the globe must to a great extent in the future, as in the past, maintain a wholesome variety in their industries and arts, but the influence of International Exhibitions will probably result in modifying many essentially national peculiarities, even if it does not end in the assimilation to a common standard of excellence the arts, both fine and industrial, of all progressive races. Such an assimilation need in no great degree destroy the piquant variety stamped on a nation's products by its individual genius, for so long as any nation maintains its political independence and cherishes its past history, caring with a loving hand for the monuments and masterpieces of art which its ancestors created, and handing their accumulated treasures down to a posterity for whose education in art a thoughtful provision is made, so long, a nation is in no danger of losing its individuality of character in art-work. This however is only true to the extent that its art-work is good, for the inevitable result of these periodical and universal exhibitions will be to destroy bad art-work, whether of a national type or appertaining to individual effort.

Conventions of nations peacefully competing in art will have the same experience as a congress of representatives of all races met to determine important political matters. Each delegate will be expected to state distinctly his own nation's views, and listen with courteous attention to the views of all the other representatives. If his views are simply clannish or actively offensive, he must expect them to be canvassed and rejected; if broad and truthful, they may be received and welcomed. But the fact that such a congress is held is an admission that every member has something to learn, and may have much to give up before the deliberations are completed. The public opinion of the world is an accomplished fact, and though different nations may accept it in a greater or lesser degree, they cannot wholly ignore it or set it at defiance.

So in the universal exhibitions, at which may be seen the products of all civilized races, to be examined and studied by representatives of every contributing race, there will be formed a public opinion of the world on industrial art displays, which will generally be found to accept the good and reject the bad, wherever it comes from, and these universal verdicts will be in the main as correct as the judgments of any other tribunal. A simply barbarous art subjected to the critical examination of the whole world cannot survive the test, however remote may be the country displaying it, or however its practice may be cherished as the expression of the people producing it. A bad work of art, picture or statue, exhibited in good faith by its author, who thinks it is a good work, placed side by side with an excellent work, will teach the producer of the latter nothing wrong, but its own author, capable of improvement as he must be, will be seriously benefited by the comparison. The same results will follow a judicious comparison of the industrial arts of all nations. That which is able to undergo the scrutiny of critics who judge from as many standpoints as the countries from which they come, if it establishes for itself the character of being good, honest and skillful work, will deserve the reputation it secures, and will confer a benefit on the producers of work which is inferior to it in character. On the other hand, no fictitious reputation nor long-established custom can hide from a universal jury the defects which a bad work has, and the detection of its meretricious character, judged by itself or as compared with work recognized to be good, is as certain to result and to be of as great a service to art in its own way as is the recognition of excellence. By this action the provincialisms of the world displayed by nations will eventually be made to disappear,

Sèvres Vase.

and its skill and taste become an universal possession. To this the artistic nations might object (as the selfish manufacturers rejoicing in a temporary superiority might object) that when the whole world is skillful, the value of skill will disappear, and that what is the property of every country will be of no particular advantage to any one. In reply we should say that some things are so precious and so necessary to perfect human happiness that the mere thought of monopolizing them is a crime against the human race, whilst the more completely they are possessed and enjoyed by one, the more freely are they available to every human creature. If every country in the world were free from despotism, would liberty be less enjoyable to the English race? Who but a knave could rejoice in his personal freedom and love to hear the clanking of his neighbor's fetters? Is health and strength the perquisite of a few who would value it less if all were healthy and strong? Is there not sunshine enough to rejoice our hearts and go all round the world without depreciating the value of sunshine? And in the same manner that as liberty, health and sunlight exist for the whole world, and can be universally enjoyed without decreasing their value to any individual, so good art may be the common possession of all peoples without a single country or a solitary individual being injured thereby.

Sèvres Vase.

Let it therefore be acknowledged that the general elevation of industrial art will be of universal benefit, and that the objectors thereto must be like those who would monopolize liberty, health and sunshine, and other common enjoyments, and we shall become reconciled to International Exhibitions, and display the charity which, besides being a good thing in itself, is said, on excellent authority, to cover a multitude of sins.

The great division of the art department of these exhibitions into the fine and the industrial, enables us to compare the resources and modes of expression peculiar to each. This display of work in each division has been the result of development, for there was no fine art section in the Exhibition of 1851. In Paris, in 1855, the field was more comprehensive; in London, in 1862, the fine art section was quite important, whilst again in Paris, in 1867, there was not only fine art but antiquities. In Vienna, in 1873, the educational department was developed into a prominent place, and the Philadelphia display left out nothing that other exhibitions embraced, and added many original features.

Cut-Glass Decanter.

The general distinguishing characteristic of the Centennial Exhibition was the excellence of its industrial department, very far surpassing the collection of works in the fine art section. This was a natural result of the contrary views taken of the whole scheme, by this country on the one hand, and by the rest of the world on the other.

Outside of the United States the project presented itself as intended to develop trade alone, and so we found that only one European Government went beyond this commercial view and sent a national collection of fine art works. It should not be forgotten that England alone, through its Government, participated with America in regarding its Centennial Exhibition not only as a trade speculation, but as a celebration of the greatest event in its history. There is, indeed, something

like poetry in this fact that, one hundred years after 1776, the descendants of the men who lost and the men who won an empire should join together in true brotherly regard in celebrating the event. The rest of the world had nothing to celebrate and much to sell, and the picture-galleries which were filled by others than America and England were only bazaars for the sale of pictures. None of the treasures of the Louvre or the Vatican found their way to Philadelphia, though the British Royal Academy sent of its best. But all the world had its manufactures to display, and knew the extent of the market

Chinese Porcelain Vases.

to be secured by its successful industries. We saw, therefore, as a consequence of this way of regarding the Exhibition by the world, a strong industrial and weak artistic competition among the works of foreign countries, and the reverse in the American department. This gives the subject of industrial art as there displayed an interest greater than it has had in any but the first of International Exhibitions.

To appreciate the character of the works, and estimate the positions held by the different nations, it is necessary that we should consider for awhile the peculiar domains of the two phases of art—fine and industrial—and see to what extent they employ a common language, and in what they are entirely different. It has been the fashion of very modern times to believe that no dividing-line can be drawn between the functions or language of the two, and

that between the lowest efforts of industrial and the highest attainments of fine art is alone to be found a radical difference of capacity and purpose. The advocates of this view instance a vase by Cellini, or the Milton Shield by Ladeuil—both objects of use, yet displaying in their ornamentation the highest kind of fine art—and represent that a line which attempted to separate fine and industrial art would be covered by such objects as these, which belong equally to both, and therefore to neither alone. There appears to be a confusion of ideas in this view, resulting from selection by the artists of utilitarian objects upon which to display their capacity for and power in fine art. It is a question not yet decided whether the examples of even the greatest masters justifies the employment of the highest art as ornament for merely useful objects, and this is apart from the still more disputed question of whether the human figure is properly employed in ornamentation at all. The lovely basso-relievo chasings of Ladeuil or Flaxman might as well have been worked on tablets, to be framed like pictures, as upon shields, and the question to be settled is whether the heroic sentiment associated with the name and the convenient form of a shield is ample apology for its use as the basis for a work of fine art. By the name alone could the beautiful work of art called the Milton Shield be mistaken for an industrial object; and one of the lessons to be learned from such a work is, that if it becomes a sacrilege to use an object for that purpose which its name implies—*i. e.*, when a shield intended for the protection of the human body becomes a shrine at which the soul worships—then the true province of ornamentation has been abandoned, and the realm of fine art attained. By the union of the two branches of art in one object results a confusion of thought concerning the functions of both. Yet though this confusion has existed and does exist in the minds of some, it by no means establishes the principle that there is no distinction between the scope and language of the two, but only demonstrates the necessity for a discriminating analysis. If for instance we see that in the great art epochs a clearly distinct line was drawn between the scope and methods of fine and industrial art, and that in the worst periods of art the line was indistinct or obliterated; if the works produced by the men who recognized this line of demarcation remain to testify in all their perennial beauty that art had allied itself to the spirit of Nature, and expressed eternal principles; and if the works of men who ignored

this line appear only at long intervals attractive, and then but to those who judge by sensation rather than sense, and if the basis of the existence of such works be only the caprice of fashion or the affectation of popularity, coming and going without reason if not without law, then we must arrive at a definite conclusion that there is a principle underlying this question which exists through all the ages, whether we guess at it, find it or ignore it; and that in the world of art, as in the physical world, accident is impossible and law reigns. What we call accident is only law misunderstood or disobeyed; what we call beauty in art is but the co-ordination of men's works with God's works, the expression of the perennial character of created things, and displaying the law by which they exist, as contrasted with the exceptional or temporary nature of a particular instance of His work, the individual rendering of a law under special circumstances. Thus the Venus of Milo female type of beauty will never go out of fashion, and the world will never change its opinion about the statue as a work of art, because the artist only displayed in his ideal the permanent type of his subject, which will last as long as men and women are alive to see it. But the way in which the back-hair of the lady is looped up, being only a human arrangement, passes away and reappears alternately on the head of the modern Venus of flesh and blood, coming into fashion apparently about twice or thrice in a century—less frequently, perhaps, or it may be more often; and whether one or the other, our appreciation of the statue of the goddess is never affected by it, for the Venus is perennial though fashion dies.

The same principle may be applied to ornamentation as to fine art. The design which is permanently acceptable to cultivated taste is that which is based on nature as a foundation, and true to all time, which generalizes the characteristics of nature, and adapts them to increase man's enjoyment without sacrificing his convenience. So long as the nature upon which this design is based exists for men to see, so long will each explain the other, the origin and the application; but just to the extent that the natural basis and conventional arrangement are departed from, displaced by mere imitation, or temporary or local fashion, so will the appreciation of such work be short-lived or limited to the vulgar taste it was intended to gratify.

When we see the same general principles of design adhered to in all the great epochs of ornament, and see them departed from in the periods of

debasement, it is not difficult to see the reason for the distinction between good and bad; and that is undoubtedly the case. The three great styles of ornamental design, during the periods of their purest development, very plainly displayed the same features of conventionalization, geometrical arrangement of natural forms, their adaptation to ornament an object without injuring its usefulness, and avoided the direct imitation of nature for design. These are the characteristics of Greek, Gothic and Renaissance ornament at their best, and when these features became less prominent, the styles decayed, ending in the

Hindoo Bronze Vase.

barbarous efforts at ornamentation that come of imitation without thought. For let it be remembered that design is not the mere imitation of details of the physical world, but adaptation and arrangement of them. Imitation may be seen in the looking-glass, but the glass can hardly be said to design; so a man who reproduces the accidental grouping of natural forms to ornament a carpet or a wall-paper only imperfectly represents the phenomenon of the mirror, with as little thought, the same skill in design, and with less reflection.

The broad clear line, then, which history teaches us to draw between design applied to *industrial* and *fine art*, divides the *ornamental* from the *pictorial*, the *conventional* from the *natural*, *adaptation* from *imitation*, the *geometrical* from *perspective effects*.

When either branch of design deserts its own characteristics and employs

the language of the other, the result will be final debasement, however beautiful at first sight may be the form in which the error is displayed; though permanently beautiful, it will not be held. Accepting these general principles, it is not impossible to formulate, or at any rate to indicate, the necessary elements of good taste in design for industrial purposes.

Before going into details concerning the application of design to special

Hindoo Bronze Vase.

branches of industry, let us examine for awhile the bearing of the dividing-line drawn above, and see whether it explains the exceptional beauty of styles which recognized its existence. It is sometimes convenient, for the sake of illustration, to put cases in their most exaggerated forms, in order that those who are unaccustomed to make nice distinctions between right and wrong may see the truth when the blackest and whitest are placed side by side. Even those who are unable to make a comparison may be reached by a contrast, just as those who never had the blessing of a musical education may be deaf to the

mild agony of an intentional discord, but would be exasperated and gesticulant over the clanging and horrors of half a dozen brass bands playing that number of tunes at the same time, under the windows. In reasoning, when there is danger of missing conviction by traveling towards the positive, the reasoner obtains the result he wants by going towards the negative pole, and by the process of *reductio ad absurdam*, proves conclusively what a thing is not—the first step towards proving what a thing is. Let us take this step in order to arrive at some definite conclusions regarding ornamental art, the fruition of industrial design.

The point stated is, that design of ornament for objects of use should be adapted, not imitated, from nature, or from accepted types of good historic ornament; that to fine art belongs the imitative and natural, to industrial art the adaptive and conventional. When this is reversed, let us see what happens. A man made wealthy beyond all counting of money, by oil-wells discovered on the wilderness in which he kept cattle, was determined to have an up-town mansion in the metropolis most elegantly furnished—not in the style approved of by the quiet gentlemen who work for nothing in the great universities, and dispense Greek thoughts and create the love of Greek art at a slight advance on starvation, for the love of art, but in the grand smashing way of a bank-president who only means to enjoy it for a year, and then seek permanent seclusion in some country which has no extradition treaty with the United States. Feeling the burden of untold millions accidentally his own, the instructions to the upholsterer are always in the same key—"Spare no expense; make it lively and cheerful; don't have nothing in the house but the most splendid stuff you can get."

House-furnishers are human, but they measure men and women as well as rooms and windows. They are also sometimes skilled in judgment, and will measure a man for his furniture with as much precision as the boot-maker measures his foot for a pair of boots, and will fit him as well. So when Mr. Kerosene Crœsus gives an order for the furnishing of Shoddoleth Mansion, the upholsterer takes the gentleman's measure of taste, and in order to fit him furnishes somewhat as follows:—

The carpet in the reception-room is ornamented by enormous groups of the largest kinds of flowers, spread widely apart, so that the inquiring visitor,

interested in art, has to move two chairs and a table before he can get a clear view of any one bouquet. The primary colors predominate as a rule in flowers, and so the floor has a very lively appearance, according to order. The impatient visitor waiting to be received must have his attention engaged, and so the walls are covered by an elaborate paper-hanging, on which frequent and persistent humming-birds and birds of Paradise, in all the gorgeous plumage of the Orient, relentlessly pursue prismatic insects, who, in the flutter and excitement resulting from this attack of handsome savages on them, seek a hopeless refuge among wreaths of roses and lilies and amaranth, suspended on the bronze frame-work of the out-of-doors scenery. The ceiling, emblematic of heaven, is an elaborate imitation of the effect of sunlight on clouds and vapor, which display the whole register of aerial effects, from the blazing reflection of golden rays of direct light, through the mild tenderness of the divine azure to the sombre tones of atmospheric shadow before the storm breaks to clear the firmament of its impurity. That is the background. Disporting themselves on this elaborate heaven are cherubs and seraphs, who, regardless of all scientific laws of motion, have all their motive power behind, and the weight to be propelled in front of the power, a putting of the cart before the horse, to which age has given a fictitious authority. These subordinate spirits are dancing attendance, or, more properly, flitting attendance, on a human deity symbolic of love, drawn in a three-ton golden car by several doves harnessed to the vehicle with blue ribbons, all of which is supposed to be a human reflection of the ideal common sense of the Almighty, under the name of romantic composition, above the perceptions of ordinary men. Though there is no open fireplace in the room, the ghost of its ancestors remains in the shape of a mantlepiece and a blind grate. On this mantle are placed costly porcelains from France, hideous bronze grotesques from Japan, and a vase of artificial flowers, made in moulds, of wax material, but colored to imitate natural flowers—flowers which never grew, never can decay, and never really existed. A few engravings might be seen on the walls, if the flashing colors of the humming-birds, roses and lightning-bugs did not so completely kill all modest effects of mere light and shade.

But this is only the porch to the temple. The intention so far has been to impress on the visitor how fortunate it would be for him to be intro-

duced to the holy of holies which Mr. Crœsus, with a farmer's vocabulary, calls his parlor.

Let us now see the triumphs of the highest moneyed taste. The carpet here is the best imitation of a landscape-painting that can be woven in dyed wool, the subject embracing a vast extent of country in a poetical region, like one of Turner's day-dreams in color, displaying miles of fertile valley, a majestic river flowing through it, upon one of whose banks rises as charming a piece of architecture as ever adorned a bride-cake. Farther away a broken range of mountains, and farther still the peaceful blue sky, checkered only with cloudlets of fleecy whiteness and purity. Let us walk across this carpeted floor and keep count of what we shall tread upon. The first step places us in the centre of a herd of deer browsing in the valley, all of one's head and part of another's body being thus hidden by a No. 10 boot; the next step is into the most graceful curve of the river at its deepest part, then on to the top of the moated castle, thence to the centre of a forest in the mid-distance, thence to the highest elevation of an Alpine mountain, and lastly upon the heavens themselves. Arriving at the sham fireplace, we step on a hearth-rug, the design for which is a monarch of the glen rising in a stately manner from his native heath, an excellent copy from one of Landseer's most striking pictures of stag-life.

Hindoo Water-Bottle.

Retracing our steps, of course everything is seen the wrong way. The trees appear to grow down, and the river to run up; the highest part of the castle is the ditch round the foundations, and the lowest its turrets and pinnacles; even the red deer stand on their heads and graze with their hoofs; and whilst this all occurs to the details of the landscape, the general effect is so changed that the heavens are beneath and the earth above, which, taken altogether, may be described as a triumph of distorted taste.

Not to dwell too long upon so unlovely a theme, this misdirection, which is seen so plainly in a landscape carpet, may be detected in almost every other object of use to which ornament can be applied. On the breakfast-table the boiled eggs are to be found in a porcelain basket which is the model of a setting hen, as though half-hatched eggs were delicacies, and when Mr. Crœsus requires some cream for his coffee, he seizes the rampant tail of an earthenware brown cow, and swinging the whole animal in the air, forces the cream through her mouth—cream which has been previously introduced into her body through a skylight in her back.

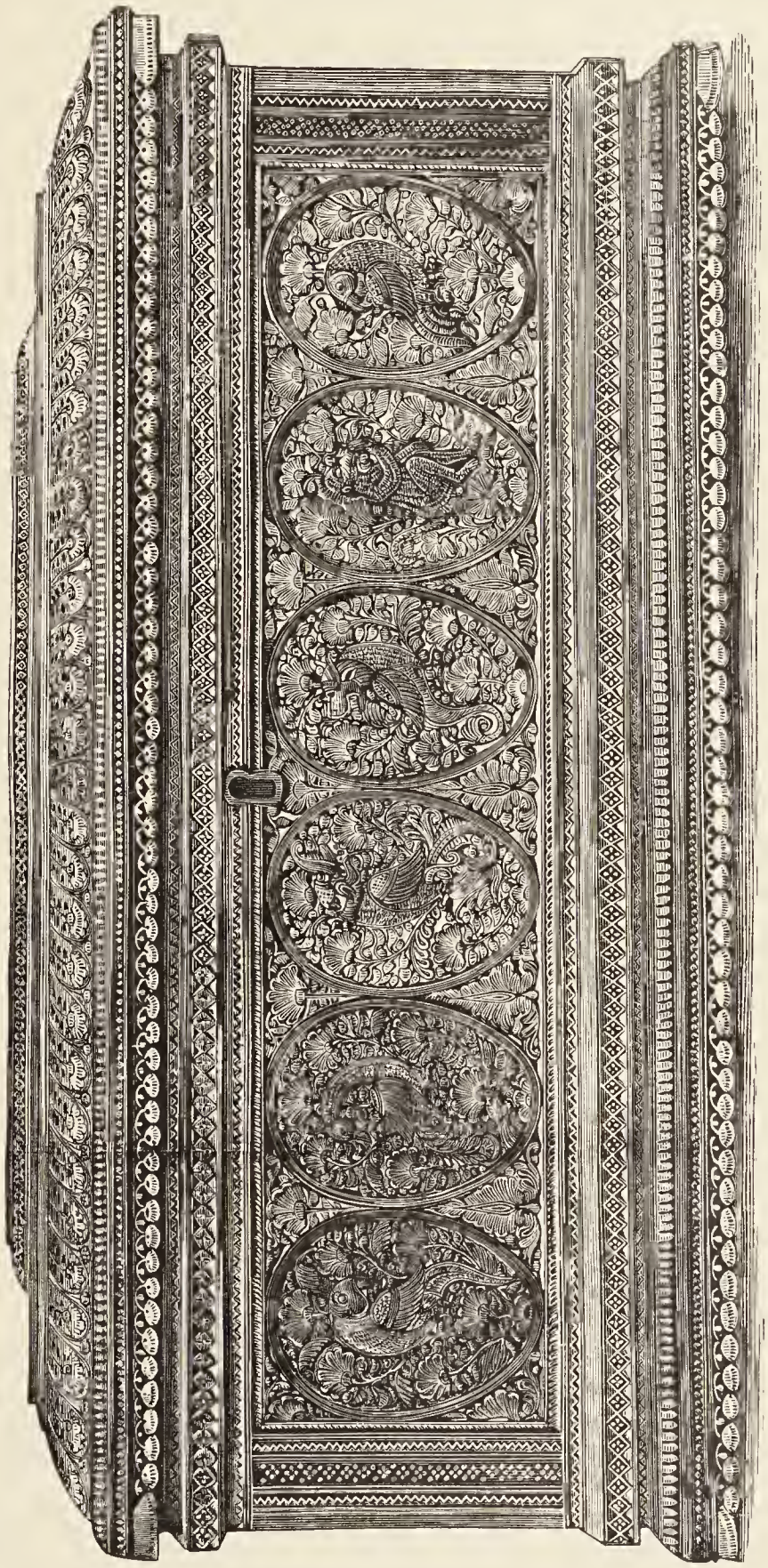
Hindoo Water-Bottle.

There is also a tragic side to this demoralization of taste, for in a private sanctum, where memorials of the past are preserved to remind Mr. Crœsus of his early struggles, and to enhance the value by contrast of present wealth, are two candlesticks of sea-green glass, which are models of the Crucifixion; the bowed head of the Saviour and his outstretched arms forming the handle by which it is to be carried; and that great historic scene which was complete when the dying Saviour cried in mortal agony, "It is finished!" is employed to furnish the ornament of a stick with which to hold a tallow candle—the crown of thorns to catch the grease as it gutters over, and the pierced side of Christ to be clasped in the hand whenever Bridget takes this candlestick into the cellar to light her when fetching a hodful of coals.

All this happens when designers forget the limits by which ornamental art for industrial purposes should be bounded, and, overstepping these lines, invade the domain or employ the language of fine art, by imitation rather than adaptation. The same mistakes occur, though in the opposite direction, when the designer of a picture or a statue abandons the truth and beauty of nature, or neglects to imitate her best types, or treats them in an ornamental spirit. Then results either a conventional, academic manner, stiff and formal, or madly

eccentric in its individuality, which, being only a crazy fashion and not a truth, becomes as temporary in its existence or appreciation as the fashionable absurdities in dress. It is true that many imperfectly educated artists fall into this miserable style of work from want of knowledge and lack of power; it is not so much chosen wickedness on their parts, as an unfortunate imbecility, produced by a morbid belief that the highest success in art is more the result of training the heart than the head, a thing of the emotions rather than a matter of intellect. It is a fact having a very definite meaning, and which ought to have much influence upon all schemes of education for professional artists, that all great artists have been men of great intellectual powers and attainments; and the ignoring of this historical fact has led many men to infer that science has no necessary place in the education of an artist; yet both Leonardo da Vinci and Michael Angelo must have devoted as much time and care to the study of science as of art. Now, if we compare their works with those of other artists deficient in scientific knowledge, we find those of the former have a knack of being right, whilst the latter display the habit of being wrong in matters pertaining to form. Color is so much a question of individual perception or appreciation, and so little of exact knowledge, that it is not so possible to apply close standards of right or wrong (even if they existed) in judging the works of artists as to color. Not so of form, or light and shade, which are subject to the most stringent scientific laws, and outrages of these laws are therefore easy to detect. Viewed in this light, the pictures of painters who ignore science are nothing but elaborate mosaics of lies, no one detail of which can possibly be true, for their authors possessed no accurate knowledge of the appearance of natural phenomena by which these details could be tested and judged. If we find in an elaborate composition a detail of architecture, of exact geometric form, drawn under the influence of light and shade, both the form and effect of chiaroscuro are capable of absolute test and demonstration of being either right or wrong. The man who is ignorant of the scientific rules and basis of art will draw these wrongly all the time, unless about once in a hundred times he gets the form and effect right by accident. Now, if we apply this test to a simple detail whose accuracy can be demonstrated, and find the painter has drawn it wrongly, why should we trust his version of a face or a landscape which require infinitely higher powers of observation? If we

cannot trust a man with a penny, why entrust him with a pound? and what sane man would do so? A man notoriously dishonest about cents will steal dollars when he has developed his talent and the opportunity comes, and a semi-blind man who cannot see a leaf with sufficient perception to draw it accurately need never be relied upon to draw the whole tree from which it has been plucked.



Hindoo Sandal-Wood Casket.

It is no answer to this argument to say that the inspired artist *feels* when he is right, for that is only a sentimental opinion of his own work, which may be entirely wrong without his knowing it, and true perception or feeling is based on our capacities to see accurately and test our knowledge. This, which is true of fine art, is equally true of design for industrial art. We had too many lamentable illustrations of this truth in the works of half-educated artists in the Centennial Exhibition to doubt it, and there were not wanting many examples of the types of bad taste already described to show that errors exist on both sides of that line which divides fine art from industrial art.

If we turn from these and examine works of industrial art which are accepted as types of good design, we find precisely the opposite of such a spirit as that referred to, and a recognition of the dividing-line. Consistency and simplicity are the necessary characteristics of good ornamental art, and all great schools have recognized it. Inconsistency, over-elaboration and sham have marked the ephemeral products of those schools or epochs which have never been nor will ever be considered great. Let us see, for instance, how the Greeks looked at design for industrial purposes. There are not more than twelve distinct forms of ornament used for the decoration of all their industrial products, but these were well chosen and well adapted, and invariably increase the beauty of the object ornamented without detracting from its use and convenience. Not one of these forms makes more than a slight approach to the imitation of nature; in only a few does this extend to the ignoring of symmetry as an element of conventionalism, and in none at all is this last feature entirely departed from. This much of ornament.

It is to be remembered, however, that design for useful objects includes both their construction and ornamentation, and the first is to be attended to first, before any consideration of the second is necessary. Faithful service well performed is what human nature requires of its servants, for that cannot be dispensed with as an ideal, however much of this ideal service is lost in the actual performance through want of skill; and then comes the soul's longing for graceful service added to faithful service. Satisfying the whole need of both body and soul is the function of good design, whilst beautifying the necessity is the province of ornamentation. So the canons of criticism upon which industrial art may be judged are not past the comprehension of very ordinarily educated people, always supposing that they have common sense as human creatures, and some modesty and refinement of thought. For just as most people are fair judges of good workmanship so far as serviceableness goes, thus far they are competent critics of more than one-half of the quality of useful objects, their adaptation to the utilitarian purposes for which they were designed. Then there is the second half of the capacity to criticise—viz., judging of the purity of taste and skill of workmanship displayed, which is necessarily a matter either of education or observation, another form of education. The knowledge of the expert includes not only these two branches, but

also a close acquaintance with the materials of the arts, and intimacy with processes of manufacture; for not only must good design be on right general principles of taste, but it must recognize the peculiarities of the raw material in which the design has to be produced, as well as the process by which it will be manufactured. Such a comprehensive knowledge as that is not necessary for the ordinary person aspiring to possess good taste, for all will never become experts, but if they did, even then there would be no experts left.

Seldom has there been, even if ever, so complete an opportunity for the cultivation of good taste and sound ideas concerning industrial art as the Centennial Exhibition afforded. With some definite and catholic opinions on what constitutes good taste, and a clear perception of the difference in function between industrial and fine art, then it becomes a simple matter to estimate the language of each by whatever tongue it is spoken. Art is the one universal language, and national types are but accents or dialects of the same. Here in this Catalogue is the permanent echo of the Centennial Exhibition, wherein the objects most conspicuous for their beauty, or in the technical skill displayed in their construction, are offered for the appreciation of the world and of future ages.

Living men who remember with pride the year of celebration when the nation became a century old, may here see reminders of much that was enjoyable, admirable and wonderful at Philadelphia. Men who are yet unborn will recognize in this permanent record of a national triumph the evidence that, though one hundred years had somewhat changed the character of their ancestors, time had in no wise eliminated from the national heart a thoughtful care for posterity.